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# ASSESSMENT OF MIDWIFERY PRE-SERVICE TRAINING ACTIVITIES OF THE ACCESS PROJECT

March 2010

This publication was produced for review by the United States Agency for International Development. It was prepared by Judith T. Fullerton, Ph.D., CNM and Sebalda Leshabari, Ph.D., RM through the Global Health Technical Assistance Project.



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Judith Fullerton and Sebalda Leshabari



## ACRONYMS

ACCESS	Access to Clinical and Community Maternal, Neonatal and Women’s Health Services
ACNM	American College of Nurse Midwives
AED	Academy for Educational Development
AfDB	African Development Bank
AFR/SD	Africa Bureau, Office of Sustainable Development, USAID
AMTSL	Active management of the third stage of labor
AOTR	Agreement officer’s technical representative, USAID
BEmONC	Basic emergency obstetric and newborn care
CA	Cooperating agencies
CEmONC	Comprehensive emergency obstetric and newborn care
CHAM	Christian Health Association of Malawi
CHO	Community health officer
CHPS	Community-based Health Planning and Services Program
CNM	Certified nurse-midwife
COM	College of Midwifery
CSS	Clinical skills standardization
DLI	Development Leadership Initiative, USAID
ECOWAS	Economic Community of West African States
ECSA – HC	East, Central and Southern African Health Community
EMA	Ethiopia Midwives Association
EmONC	Emergency obstetric and newborn care
EONC	Essential obstetric and newborn care
FP	Family planning
FRHP	Focus Region Health Project
GAIA	Global AIDS Interfaith Alliance
GH	Global Health Bureau, USAID
HIDN	Office of Health, Infectious Disease and Nutrition
HIMS	Health Information Management System
HIV/AIDS	Human immunodeficiency virus/ Acquired immunodeficiency syndrome
HPN	Health, population, and nutrition
HR	Human resources
HRHD	Human Resources for Health Development
ICM	International Confederation of Midwives

IMA	Interchurch Medical Assistance (IMA World Health)
MCH	Maternal and child health
MCHIP	Maternal and Child Health Integrated Program
MD	Doctor of medicine
MDG	Millennium Development Goals
M&E	Monitoring and evaluation
MoE	Ministry of Education
MoH	Ministry of Health
MRP	Manual removal of the placenta
MT	Master trainer
MVA	Manual vacuum aspiration
NGO	Non-governmental organization
NMC	Nursing and Midwives Council
NMT	Nursing/midwifery technician
PAC	Postabortion care
PMTCT	Prevention of mother-to-child transmission of HIV
PSE	Pre-service education
RHU	Reproductive Health Unit
RM	Registered midwife
SBA	Skilled birth attendant
SBM-R	Standards Based Management – Recognition
SOW	Scope of work
SWAP	Sector wide approach plan
TU	Technical updates
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children Fund
USAID	United States Agency for International Development
WHO	World Health Organization
WHO/AFRO	World Health Organization Regional Office for Africa



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## **EXECUTIVE SUMMARY**

The United States Agency for International Development (USAID) maternal and newborn health program is dedicated to reducing maternal mortality. The program is designed to focus attention on the delivery of high-impact interventions to address major direct causes of maternal and newborn mortality while strengthening health systems by addressing human resource issues.

USAID supports policies, strategies, and programs that promote awareness, prevention, and intervention across the childbearing cycle. USAID's Global Health (GH) program supports in-service and pre-service education (PSE)/training of skilled birth attendants to improve essential and emergency obstetric and newborn care (EONC/EmONC) skills to manage complications and is introducing quality improvement tools to monitor and enhance performance. USAID/GH also supports quality of care and health system strengthening to promote an environment that contributes to maternal survival.

### **THE ACCESS GLOBAL HEALTH PROJECT**

Access to Clinical Community Maternity, Neonatal and Women's Health Services (ACCESS) was a 5-year USAID/GH Leader with Associate award (2005–10). It was implemented by Jhpigo, in collaboration with Save the Children, Constella Futures, the Academy for Educational Development, the American College of Nurse Midwives, and IMA World Health. ACCESS promoted a continuum of care approach, linking individual community members to appropriate health services. This approach includes building capacity to deliver evidence-based practices and interventions at every level of care.

ACCESS pre-service activities were initiated in sub-Saharan Africa in collaboration with the World Health Organization's Regional Office for Africa (WHO/AFRO). ACCESS implementing partners worked in Ethiopia, Ghana, Malawi, and Tanzania in partnership with the Ministries of Health, USAID missions, and other collaborating agencies and funders on activities to strengthen the capacity of midwives and other skilled birth attendants (SBAs). The program included a specific focus on pre-service midwifery education and training and the provision of technical assistance to midwifery schools in Africa. Enhancing skills for provision of competency-based EmONC was a specific clinical goal.

The purpose of this assessment was (1) to learn about the impact of ACCESS on pre-service midwifery training to guide future programming and (2) to make recommendations for any change in approach or strategic direction. This report addresses the midwifery pre-service activities conducted in Ethiopia, Ghana and Malawi. The assessment of ACCESS activities in Tanzania was part of an evaluation commissioned by the USAID/Tanzania Mission of all ACCESS activities in the past four years.

### **METHODS AND STRATEGIES**

A multi-method evaluation matrix was designed that incorporated the following:

- Preliminary planning for this forward-looking assessment was conducted in collaboration with USAID GH/Office of Health, Infectious Disease and Nutrition (HIDN)/Maternal and Child Health (MCH) and the Africa Bureau of Sustainable Development (AFR/SD) offices, the ACCESS agreement officer's technical representative, and ACCESS personnel. Participants reached consensus on the intended outcomes of the assessment and deliberated on approaches that could be taken to generate the information needed to guide future programming.

- Key documents were reviewed to acquire a deeper understanding of the ACCESS project and the context of its activities in each country covered by the assessment.
- A mixed quantitative and qualitative survey that addressed key basic EmONC (BEmONC) skills and the impact of personal participation in ACCESS training activities conducted under the ACCESS project was developed and implemented in advance of the assessment activities.
- A set of interview guides was crafted to guide discussions conducted in person or by teleconference with national key informants, Jhpiego/ACCESS key personnel, country-specific stakeholders, country-level collaborating and supporting agencies, and a broad sample of individual tutors, preceptors, midwifery program graduates, and current students.
- Site visits were conducted to training institutions and clinical teaching facilities in each country where educational or clinical site-strengthening activities had been conducted and where training activities were implemented.

## **FINDINGS**

### **Overall Achievements**

ACCESS conducted assessments and stakeholder meetings in each country prior to initiating training activities. The intent was to generate commitment for educational and health system strengthening that would promote an enabling environment for midwifery education and practice.

ACCESS offered support, when requested, to promote revisions to midwifery curricula, with the objective of incorporating BEmONC best practices into national curriculum guidelines, or within individual school curricula where, as in Ethiopia, the midwifery curriculum has not yet been standardized for both baccalaureate and technical schools.

ACCESS strengthened the clinical learning environment for in-service and pre-service learners. A clinical training center or a classroom was enhanced in Ethiopia and Ghana. Clinical site strengthening was conducted in hospitals affiliated with the training centers and sites used by ACCESS (one each in Malawi and Tanzania, two in Ethiopia, three in Ghana). ACCESS made a small contribution to enhancement of learning skills laboratories (simulation labs) in some educational institutions in each country.

Courses in effective teaching skills were given to improve the classroom and clinical training skills of tutors in academic institutions. The ACCESS Learning Resource Package included manuals whose content covered effective teaching strategies, guidelines for developing lesson plans, and information about best practices for assessing student performance in both clinical and classroom settings.

Trainers and preceptors at selected pre-service institutions participated in technical updates (TU) and clinical skills standardizations (CSS) to improve their knowledge, practices, and competencies in the signal functions of BEmONC. The Malawi Mission also requested that post abortion care (PAC) and family planning (FP) content be added to midwifery BEmONC training.

### **Pre-service Education of Midwives**

#### **Ethiopia**

There are 24 public and private midwifery education programs in Ethiopia. Five are university level (4 public and 1 private) and 19 are diploma-granting institutions (18 public, 1 private). Jhpiego/Ethiopia used ACCESS core funds to conduct BEmONC training for at least two tutors from each of 11 PSE diploma schools (61%) and 2 universities (46%), thus interacting with half of all the midwifery training institutions in Ethiopia. A total of 36 individuals were trained using

ACCESS core funds over the life of the project Four master trainers (including one preceptor) were trained in 2006, 15 tutors and 2 preceptors in 2007, and 15 tutors in 2008.

## Ghana

A new three-year postsecondary diploma course of direct-entry midwifery studies was initiated in Ghana in 2007, replacing all previous pathways to midwifery education. There are now 13 pre-service midwifery programs in Ghana producing about 350 graduates annually.

The ACCESS project in Ghana focused initially on the training of trainers, then on training tutors and preceptors from schools in the country. An aggregate total of 36 tutors, preceptors, and midwifery regulatory authority supervisors were included in either teaching or clinical skills updates. At least two tutors in each of Ghana's 13 schools (100%) were trained by the ACCESS project. Ten of the 13 schools received BEmONC training, and tutors from the other three schools participated in the clinical training skills instruction.

## Malawi

There are 17 training institutions and two active pathways to nursing and midwifery in Malawi. Three schools offer Level 1 education to postsecondary students who complete four years of University study leading to designation as State Registered Nurses. Graduates obtain work experience and then return for a one-year intensive course in midwifery. Level 2 education is offered through a three-year postsecondary integrated nursing/midwifery curriculum for Nursing/Midwifery Technicians (NMTs). This curriculum was inaugurated in 2006. The first cohort of students to complete the integrated course of nursing/midwifery studies has recently graduated.

ACCESS trained 51 tutors and 46 preceptors, some with funds the project obtained from other donors. A two-week BEmONC course was augmented by a one-week PAC course; abortion is the third cause of maternal death in Malawi. However, the number trained represented only 32% of target (all tutors in all schools = 160). Follow-on trainings for service providers in five districts extended the benefits of BEmONC training to another 121 individuals.

## LESSONS LEARNED

- Ministries of Health and the regulatory authorities for both medicine and nursing/ midwifery must be engaged in planning programs that will enhance or expand the scope of practice of midwives so that these skills can be acknowledged, valued, supported, and facilitated at both policy and practice levels. (A similar lesson was learned in Afghanistan.)
- The development and advancement of the midwifery workforce is advantaged by the active engagement of a professional association that can serve as advocate for policies to strengthen the education and clinical practice environments of midwives. Technical assistance should be provided to strengthen, or to establish where necessary, midwifery professional associations.
- Training is expensive in both time and money. Shortcuts to a standardized, competency-based, teaching/learning package cannot be taken without some compromise to quality. This investment must be understood and appreciated —and agreed to—in advance of any commitment to engage in programming.
- Particular benefit was derived when BEmONC skills could be incorporated into the midwifery pre-service curriculum. These basic skills need to be in the repertoire of midwives when they enter the workforce. Teaching these skills in pre-service will, over time, reduce the burden of in-service training, which should focus on enhancing basic skills (another lesson also learned in Afghanistan).

- The training burden must be the first consideration when planning a training intervention. Planning for CSS/TU courses (e.g., BEmONC and related content) should take into account the time that will be required for participants to acquire and demonstrate competence in learning outcomes (e.g., minimum number and range of hands-on clinical experiences required by less and more experienced learners); the potential for access to clients with relevant clinical concerns (i.e., clinical incidence in the affiliated teaching hospital; learning needs of other cadres in the same clinical setting); and the tutor/learner ratio that is appropriate for the mix of learners. This information may be available from the literature or NGO resources, but basic research may also be needed.
- This same lesson learned applies to midwifery pre-service education: Standardization of midwifery curricula, including clear statements of the expected outcomes of competency-based midwifery education, is an internationally recommended best educational practice. Country-based program accreditation mechanisms may offer a strategy for strategic thinking about setting limits on the number of schools established, the qualifications of those assigned to teach midwifery courses, and how many students can be accommodated, so that each student is offered an opportunity to acquire and demonstrate competency. Regulatory authorities should be established where necessary, and, in those countries where they are already in place, they should be provided with technical assistance to explore program accreditation as a next step in advancing professional midwifery.
- Recruitment and admissions policies for midwifery students should encourage enrollment of the more qualified and better-educated candidates, preferably at the postsecondary level, and with the option of a direct-entry pathway to midwifery.
- There is little advantage to engaging in BEmONC programming or midwifery PSE if the learning (simulation labs) and clinical (maternity ward) environments do not support the acquisition of skills in the short term and their practice over time. Those in charge of educational institutions and health facilities must invest in an enabling environment for learning and practice that not only includes basic equipment and supplies but, just as important, also requires that peer practitioners, supervisors, and other medical practitioners are kept up to date on evidence-based practices. (Similar lessons were learned in Tanzania and Afghanistan.)
- All participants and stakeholders must contribute to the documentation of data for decision-making. It will take time to demonstrate the effect (or impact) of incorporating BEmONC skills into the midwifery pre-service curriculum, and unless there is a culture of documenting practice of these skills (e.g., client records, maternity care logbooks), there will never be the opportunity to measure impact, especially progress toward Millennium Development Goals 4 (reduce child mortality) and 5 (improve maternal health).

## RECOMMENDATIONS

1. **USAID, country Missions, and collaborating partners should continue to invest in midwifery pre-service education, incorporating the policy and program enhancements addressed in these recommendations,** in order to maximize the strategic investment already made in certain countries and to create the multiplier effect that is greatly needed to expand the cadre of SBAs.
2. **USAID should link its PSE programming with country-based policy advocacy, capacity building, human resource retention, and system strengthening initiatives and strategies that promote an enabling environment for the delivery of quality health services.** Ministries and other authorities must take the lead in ensuring that clinical teaching and practice sites are fully and reliably supplied and equipped.

3. **USAID and country ministries should make a substantial investment in building up teaching institutions.** Ensuring the quality of the educational environment (simulation labs and Internet and library resources) is fundamental. Preparation of enough well-qualified teachers and preceptors is also critical to reduce the teacher–student ratio to match international standards. A review of student admissions policies and practices should be encouraged, so as to promote selection of students who are highly motivated and best qualified for the profession to which they aspire.
4. **USAID-supported PSE programming should include assistance to educational institutions to enhance and broaden the scope of the teaching and learning environments.** Tutors and preceptors should be encouraged to engage with one another in both classroom and clinical settings and share responsibilities for all aspects of teaching. The link between classrooms and communities must be strengthened so that students can help address the health problems of the community and have the opportunity to acquire clinical skills in community settings in addition to the academic-affiliated health facilities and referral hospitals. This strategy might also address aggregated —regional teaching” groups through which resources can be shared.
5. **USAID should encourage continued investment to strengthen midwifery PSE** to ensure that curricula are standardized, evidence-based best practices are included as core content, the approach to teaching and learning is competency-based, and expected outcomes of learning (core competencies) are clearly stated. MOHs must be collaborative partners in this programming, make a similar commitment to quality education (standardization of curricula and program accreditation), and draw up budget plans and strategies to assume the costs of midwifery PSE.
6. **USAID should support pre-service and in-service training in BEmONC and similar evidence-based practices and life-saving skills for midwives and their health service delivery partners** (e.g., doctors, clinical officers). **Country authorities should be participants in planning for such activities, disseminating reproductive health guidelines that clearly indicate** roles, responsibilities, and standards of practice for all who are trained in BEmONC.
7. **USAID should expand the content of its trainings beyond BEmONC to the MCH content areas most relevant to the health needs (disease burden) of each country,** using the same approaches to competency-based teaching and learning that ACCESS has already modeled. PMTCT and PAC are examples of such content. Programming should be planned in collaboration with partner agencies whose scope of expertise extends across the continuum of care (e.g., child health, adolescent reproductive health).
8. **USAID should require its cooperating partners to incorporate specific plans for monitoring and evaluating the longer-term outcomes and impact of its PSE and in-service programming.** These plans should address both the degree to which learners sustain or continue to improve their professional performance, and the effect improved performance is having on health outcomes.
9. **USAID should support** (independently or in partnership with other donor agencies and professional organizations, such as the International Confederation of Midwives) **programs to strengthen midwifery professional associations,** to enhance the capacity of midwifery leaders, and to promote the professional development of midwives as a preferred cadre of SBAs with a career pathway to higher academic and policy-making levels.





## **I. INTRODUCTION AND BACKGROUND**

Maternal mortality ranks among the most compelling of global health challenges. At least 529,000 women die every year as a result of complications of pregnancy and childbirth, such as hemorrhage, hypertensive disorders, infection, abortion, and obstructed labor. Most of these deaths occur in developing countries (WHO, 2007). Another 15 to 20 million women suffer long-term disabilities that can easily be prevented if safe delivery care is provided to the majority of childbearing women, and if women who are at risk of or have already developed complications of pregnancy and/or childbirth are referred for specialized care.

Goal #5 of the Millennium Development Goals (MDGs) adopted in September 2000 (UNDP, 2000) is to improve maternal health. Two strategies are cited: reduce the maternal mortality ratio by three quarters by 2015, and increase the proportion of births attended by skilled health personnel. Goal #4 proposes to reduce by two-thirds the mortality rate of children under 5, particularly the neonatal and infant mortality rates.

### **THE USAID MATERNAL HEALTH PROGRAM**

The maternal and newborn health program of the United States Agency for International Development (USAID) is dedicated to support of MDGs 4 and 5. The program is designed to focus attention on delivery of high-impact interventions to address the major direct causes of maternal mortality while strengthening health systems by addressing human resource issues.

A priority for USAID in the last decade has been to address the importance of skilled birth attendants (SBAs). USAID supports policies, strategies, and programs that promote awareness, prevention, and intervention across the childbearing cycle, such as focused antenatal care, safe delivery by SBAs in both home and facility settings, and integrated postpartum/perinatal care and neonatal care. Upgrading skills in competency-based essential/emergency obstetric and newborn care (EONC/EmONC) has been the standard for SBA training. USAID's Global Health (GH) program also supports in-service and pre-service education (PSE)/training of SBAs to improve EmONC and other clinical skills (such as post-abortion care [PAC]) to manage maternal complications; it is introducing quality improvement tools to monitor and enhance performance. USAID/GH also supports quality of care and health system strengthening to promote an enabling environment that contributes to maternal survival.

### **THE ACCESS GLOBAL HEALTH PROJECT**

Access to Clinical and Community Maternity, Neonatal, and Women's Health Services (ACCESS) was a five-year USAID/GH Leader with Associate award (2005–2010). Its objective was to increase coverage of reproductive health and nutrition interventions to improve the health and survival of mothers and their newborns. ACCESS was implemented by Jhpiego in collaboration with Save the Children, Constella Futures, the Academy for Educational Development (AED), the American College of Nurse Midwives (ACNM), and IMA World Health. ACCESS promoted the continuum of care approach, linking community members to appropriate health services. This approach also builds capacity to deliver evidence-based practices and interventions at every level of care.

The project's activities were initiated in sub-Saharan Africa in collaboration with the World Health Organization's Regional Office for Africa (WHO/AFRO). ACCESS implementing partners worked in Ethiopia, Ghana, Malawi, and Tanzania in partnership with the Ministries of Health (MoHs), USAID missions, and other collaborating agencies and funders in activities designed to strengthen the capacity of midwives and other SBAs. Central to the program in Africa were pre-service midwifery education and training and technical assistance to midwifery schools.

Program activities included interventions designed to upgrade the teaching methods, approaches, and practices of midwifery tutors; site strengthening of the educational institutions and the affiliated hospitals in which midwifery students obtain clinical practice experiences under the guidance of midwifery preceptors; and enhancing the capacity of tutors and preceptors to perform evidence-based interventions basic to safe motherhood. Enhancing skills for provision of competency-based EONC and EmONC was a specific item on the clinical agenda.

ACCESS midwifery pre-service education activities were co-funded by the USAID GH Bureau and its Africa Bureau, Office of Sustainable Development (AFR/SD).

<b>TABLE 1. ACCESS FUNDING SOURCES</b>					
	<b>Core</b>	<b>AFR/SD</b>	<b>Field</b>	<b>Other Donors</b>	<b>Total</b>
<b>PY 1*</b>	32,775	0			32,775
<b>PY2</b>	166,036	224,848			390,884
<b>PY3</b>	310,644	273,060	(Malawi) <sup>a</sup> 399,870		983,574
<b>PY4</b>	34,980	309,334	(Malawi) <sup>a</sup> 423,045		767,359
<b>PY3 and 4</b>			(Tanzania) <sup>b</sup> 875,000		875,000
<b>PY 4 and 5</b>			(Tanzania) <sup>c</sup> 200,000		200,000
<b>PY5</b>	232,759	74,161		(Ethiopia) <sup>d</sup> 36,000	342,920
<b>Total</b>	<b>777,194</b>	<b>881,403</b>	<b>1,897,915</b>	<b>36,000</b>	<b>3,592,512</b>

\*PY = program year.

<sup>a</sup> Field support included training additional tutors and preceptors and funding them to conduct provider training in BEmONC.

<sup>b</sup> Funding supported HIV/AIDS PSE education.

<sup>c</sup> Funding supported PSE in maternal/newborn health.

<sup>d</sup> UNICEF and UNFPA provided funds to scale up BEmONC training.

## II. RATIONALE AND OBJECTIVES OF THE ASSESSMENT

Human resources for health are a major constraint in most, if not all, developing countries. Competency-based pre-service and continuing education programs are essential to the development of health workers whose skills and abilities are aligned with a country's priority health concerns.

It is widely recognized that a high percentage of maternal and neonatal deaths could be prevented if pregnant women had access to caregivers who have the competencies required to recognize the need for, and then to provide, proven, effective, and timely interventions—i.e., to provide BEmONC. WHO defines the BEmONC package as consisting of seven essential components: administering antibiotics, administering uterotonic drugs, administering anticonvulsants for pre-eclampsia and eclampsia, removal of retained products of conception, manual removal of the placenta, performing assisted vaginal delivery, and performing basic neonatal resuscitation. These services should be available at any health facility. Comprehensive emergency obstetric and newborn care (CEmONC) includes the BEmONC package, as well as the ability to provide surgery (Cesarean sections) and blood transfusions and advanced neonatal resuscitation; typically, these services are available only at referral facilities.

Competency-based pre-service and in-service training is necessary to update evidence-based knowledge and skills, including training in conducting normal childbirth in a culturally appropriate manner, as well as basic and comprehensive EmONC (BEmONC and CEmONC). Training should also include components such as PAC and postpartum family planning (FP). Currently, however, few in-service or pre-service curricula include all the skills needed to perform the signal functions of EmONC (USAID, 2007).

In light of USAID's continued commitment to improve maternal and newborn services, it was critical to assess ACCESS achievements in pre-service training and the program's strengths and challenges in order to guide future USAID investments. The ACCESS project ends in March 2010. A follow-on project, Maternal and Child Health Integrated Program (MCHIP) was awarded in 2008. MCHIP has the same goal of advancing maternal and newborn survival. Jhpiego, which led ACCESS pre-service activities, is the lead MCHIP partner.

The purpose of this assessment was to define the impact of the ACCESS project on pre-service midwifery training to guide future programming and to make recommendations for any change in approach or strategic direction (see Appendix A for the scope of work). This report addresses pre-service activities conducted in the Ethiopia, Ghana, and Malawi. Pre-service activities in Tanzania were assessed as part of the evaluation the USAID/Tanzania Mission commissioned for all ACCESS activities there in the past four years.

The specific objectives of this assessment were to

1. Examine the impact of pre-service midwifery training at three levels:
  - a) The impact of regional and country-level training on tutors, clinical preceptors, and related training institutions
  - b) The impact on institution-affiliated training hospitals and other clinical training sites and country-level midwifery training programs
  - c) The impact of the pre-service midwifery training on midwives' skills and performance after deployment.

2. Provide recommendations to USAID related to future investment in this area; and
  - a) advise whether the approach used by ACCESS achieved the desired objective;
  - b) summarize key lessons learned to guide future programming;
  - c) identify training gaps that USAID should address, and whether other cadres providing key maternal and newborn services should be included; and
  - d) identify other strategies to address human resources crises like recruitment, retention, and career development issues.

### **III. METHODOLOGY**

#### **PARTICIPANTS**

This assessment was designed to include the participation of a broad spectrum of stakeholders, ranging from global donors through country beneficiaries. Judith T. Fullerton, Ph.D., CNM, a nurse-midwife and international consultant in reproductive/maternal and child health (MCH), led the two-person team. Sebalda Leshabari, Ph.D., RM, a nurse-midwife and consultant in maternal and child health, was the other team member. Joining the assessment team as collaborating participants were USAID/GH personnel Nahed Matta, M.D., Agreement Officer's Technical Representative (AOTR) for ACCESS in Ethiopia, and Laura Campbell, MPH, USAID/GH-DLI, in Malawi.

The team was supported in the each country by Jhpiego country-based personnel, who arranged all interviews and site visits and accompanied the team on visits to training institutions and health facilities. They did not participate in interviews unless the team leader so requested. Lilly Banda-Maliro, Deputy Team Leader (HPN), USAID/Malawi, accompanied the team in that country as participant observer.

#### **METHODS AND STRATEGIES**

A multi-method evaluation matrix was designed using the following methods and strategies:

- Preliminary planning for this forward-looking assessment was conducted in collaboration with the USAID GH, HIDN, MCH, and AFR/SD offices, the ACCESS AOTR, and ACCESS personnel. Participants reached consensus on intended outcomes of the assessment and deliberated on approaches that could be taken to generate the information needed to guide future programming.
- The team reviewed key documents in order to thoroughly understand the ACCESS project and the context of its programmatic activities. Background documents included BEmONC training materials and training activity reports (process and outcomes). Supporting documents included recent reports of evaluations of ACCESS activities conducted in Afghanistan, Ethiopia, and Tanzania. Enrichment materials included reports prepared by collaborating agencies or donors, such as a recent national situational analysis of pre-service midwifery training in Ethiopia (WHO/Ethiopia, 2008), and reports of capacity assessments of midwifery education programs conducted jointly by the Ethiopia Midwifery Professional Association and ACCESS (2006) and the UNFPA (2009) (see Appendix B for a full list of documents reviewed).
- A mixed quantitative and qualitative survey that addressed key BEmONC knowledge and skills and the impact of personal participation in ACCESS training activities was developed and implemented in advance of the assessment activities. Surveys were conducted by Jhpiego/ACCESS personnel in Ethiopia, Ghana, and Malawi (Table 2). The data were entered by monitoring and evaluation (M&E) personnel in each country. The assessment team interpreted the qualitative data together. The team leader did the analysis and interpretation of quantitative data.
- A set of interview guides was crafted to guide in-person and telephone discussions with national key informants (e.g., USAID GH personnel); Jhpiego/ACCESS key personnel; country-specific stakeholders (e.g., Ministers of Health and Education, Directors of Health Human Resources); and country-level collaborating and supporting agencies (e.g., midwifery professional associations, UNICEF, UNFPA, WHO, and other donors). The team engaged

with a broad sample of individual stakeholders (tutors, preceptors, midwifery program graduates and current students) through individual interviews or focus groups. (See Appendix C for a list of individuals interviewed.)

- The team visited training institutions and clinical teaching facilities in each country where educational or clinical site-strengthening activities had been conducted and where training activities were implemented.

<b>TABLE 2. RESPONDENTS TO THE FIELD SURVEY, BY COUNTRY*</b>			
<b>Respondents by Country</b>	<b>Tutors</b>	<b>Preceptors</b>	<b>Students, Trainees, and Graduates</b>
<b>Qualitative</b>			
Ethiopia	24	5	32
Ghana	5	5	19
Malawi	29	27	9
<b>Quantitative</b>			
Ethiopia	24	5	32
Ghana	13	8	29
Malawi	30	29	10

\* N of respondents to qualitative surveys include only those whose responses were complete and legible.

## IV. GENERAL FINDINGS

### OVERVIEW OF THREE COUNTRIES: MCH STATISTICS IN BRIEF

Core MCH indicators for each of the three countries assessed are provided in Table 3. Statistics were drawn from a variety of sources, which sometimes reported different data for the same indicators. Demographic and Health Survey data were *not* used as reference sources because recent data were not available for Ethiopia and Malawi. Ethiopia has the lowest rate of skilled birth attendance of the three countries assessed, but rates for several maternal and neonatal indicators are unfavorable in all three countries.

TABLE 3. DEMOGRAPHIC AND HEALTH INDICATORS			
Indicator (Source)	Ethiopia	Ghana	Malawi
Population [in 1,000s] <sup>2</sup>	81,021	23,008	13,571
Lifetime risk of maternal mortality <sup>1</sup>	1 in 27	1 in 45	1 in 18
Maternal mortality ratio (per 100,000 live births) <sup>4</sup>	673	560	984
% women using modern contraceptives <sup>1</sup>	14	19	39
Fertility rate (2009 estimates) <sup>3</sup>	6.12	3.68	5.59
% antenatal care <sup>2</sup>	28	25	92
% skilled attendance at birth <sup>1,2</sup>	6	50	54
<b>Mother's Index</b> <sup>1</sup>	26 <sup>th</sup> of 40 tier 3 countries	64 <sup>th</sup> of 75 tier 2 countries	5 <sup>th</sup> of 40 tier 3 countries
% exclusive breastfeeding <sup>2</sup>	49	54	56
Neonatal mortality rate /1,000 live births <sup>2</sup>	51	27	40
Neonatal mortality rate /1,000 live births <sup>4</sup>	39	43	27
< 1 infant mortality rate <sup>2</sup>	77	76	76
< 5 mortality by descending rank (of 270 countries: highest mortality = Rank # 1)	30	32	32
< 5 mortality rate per 1,000 live births <sup>1</sup>	119	115	111
< 5 mortality rate per 1,000 live births <sup>2</sup>	123	120	120
<b>Children's Index</b> <sup>1</sup>	34 <sup>th</sup> of 43 tier 3 countries	70 <sup>th</sup> of 79 tier 2 countries	9 <sup>th</sup> of 43 tier 3 countries

#### Sources:

- (1) Save the Children; State of the Worlds Mothers (2009)
- (2) United Nations Children's Fund, State of the World's Children (2008)
- (3) CIA Factbook (2010)
- (4) USAID Report to Congress (2008)

## **ACCESS PRE-SERVICE EDUCATION ACTIVITIES**

ACCESS conducted assessments and stakeholder meetings in each country where it operated before initiating training activities there. These meetings brought together key representatives from ministries responsible for health service delivery and health human resources, regulatory authorities (e.g., Nurses and Midwives Council), professional associations, and collaborating agencies (e.g., WHO, UNICEF and UNFPA). Their intent was to generate commitment for educational and health system strengthening that would promote an environment that enabled midwifery education and practice.

ACCESS selected a core set of key interventions that were likely to make an impact on maternal, neonatal, and child health both in the short term and over time. Its involvement in midwifery pre-service education in each country was specifically tailored to the priorities and interests identified in the needs assessment conducted at baseline. In general, however, the activities consisted of provision of technical advice related to standardization of midwifery curricula; strengthening the teaching capacity of midwifery tutors (principles of adult learning and contemporary teaching practices); and updating and enhancing the clinical practice skills of tutors and preceptors in the signal functions of BeONC.

ACCESS offered support, when requested, for revisions of midwifery curricula, with the objective of getting BEmONC best practices incorporated into national curriculum guidelines or, in Ethiopia, within individual school curricula, because the midwifery curriculum has not yet been standardized nationally for both baccalaureate and technical schools. The timeline for the ACCESS project unfortunately did not coincide with curriculum revision activity in Ghana or Ethiopia, but MoH and Ministry of Education (MoE) spokespersons in those countries indicated they plan to keep in mind Jhpiego's technical capacity in this area when the next review cycle occurs.

ACCESS did strengthen at least one clinical training site in each country by building clinical training skills labs (one each in Ethiopia and Malawi and two in Ghana). It also made a small contribution to enhancing learning skills laboratories in some educational institutions in each country.

The project put on Effective Teaching Skills courses to improve the classroom and clinical training skills of tutors in academic institutions. Manuals in its Learning Resource Package addressed such content as effective teaching strategies, guidelines for developing lesson plans, and information about best practices for student assessment in both clinical and classroom settings (the “black book”).

Trainers and preceptors at pre-service institutions participated in technical updates (TU) and clinical skills standardizations (CSS) to improve their BEmONC knowledge, practices, and competencies. The scope of these activities was expanded through acquisition of supplemental field support funds (Malawi) and a Tanzania Associate Award. The Malawi Mission also requested that PAC and FP content be added to the midwifery BEmONC training. All preceptors and tutors trained in BEmONC (three countries) and PAC (Malawi) received follow-up supportive supervision at both educational and clinical training sites.

These trained tutors and clinical preceptors, equipped with current BEmONC knowledge and skills and enhanced teaching capacity, in their turn, conducted additional (“trickle-down”) local training and acted as mentors for other trainers. Master trainers in each country have been called upon by other organizations (e.g., MoH or non-governmental organizations [NGOs]) to teach midwives and other MCH personnel.



## REGIONAL VERSUS COUNTRY TRAINING

Many countries in Africa have “road maps” that are work plans for attaining MDGs 4 and 5. Many also have established or use existing regional coalitions to support one another in pursuit of these goals, such as the Economic Community of West African States (ECOWAS) and the East, Central and Southern African Health Community (ECSA-HC).

The ACCESS project was regional at first because, given funding limitations, it was considered more cost-effective to engage with partners in regional activities. ACCESS worked with other AFR/SD projects, such as Africa’s Health 2010 (Africa 2010), and with international partners, such as WHO/AFRO, UNFPA, and UNICEF, on the start-up of at least two regional initiatives: (1) training of facilitators for implementation of African road maps, and (2) strengthening pre-service midwifery education in Anglophone Africa.

As part of the second initiative ACCESS helped conduct regional TU and CSS courses for midwifery educators and teacher-training activities. As the project evolved, clinical training (BEMONC skills-building) was largely implemented within single countries.

The team was initially asked to compare regional activities, such as those of Africa 2010, with ACCESS pre-service activities conducted at both regional and country levels, in order to compare the benefits and challenges of both models. Several key individuals were interviewed in the effort to gather informative and comparative data; however, the team had little opportunity to compare the models in any depth. The Africa 2010 project was recently evaluated; that evaluation report can be drawn on for information related to the regional approach.

The team did, however, have the opportunity to speak with several key informants who were knowledgeable about both the regional and country-level training conducted by ACCESS, such as ACCESS staff members; representatives of USAID bureaus, WHO/AFRO, and Africa 2010; and master trainers (MTs). The MT respondents were both international, from the ACNM, and country-based (local). Key informants were asked to address the positive aspects and the inherent challenges of both training approaches. Respondents indicated that the following could be cited as points in favor of conducting trainings at the regional level:

- There was opportunity for sharing experiences, so that participants could acquire information about approaches or strategies being used in other countries.
- A platform for cross-country collaboration was established, creating the potential for further cross-fertilization of educational and clinical ideas, and the development and mentorship of midwifery leaders. “Communities of practice” can be fostered.
- Regional trainings focus on standardization of practice, which is intended to flow over into country approaches to delivering clinical services.

Respondents also noted that certain course content, such as effective teaching skills, is ideal for regional training activities, because the content can be taught to large numbers and does not require “translation” across country borders: The principles do not necessarily need to be adapted, but simply accommodated, to the educational resources available.

The challenges of regional *clinical* trainings were said to depend on who was being trained, and the skills trainers are trying to impart:

- Planning and implementation presented formidable logistical challenges. For example, readying a teaching and clinical site required transportation of commodities and supplies, sometimes over long distances, and a substantial time investment in making arrangements for transport of participants to the training site and their accommodation at the venue. The WHO/AFRO representative noted that locating clinical training in the participant’s own

country necessarily acknowledges the day-to-day realities of context-specific items, such as the support of coworkers, commodity stock-outs, and the actual human resource situation.

- Far fewer numbers of participants from any one country could be accommodated in regional trainings. Where participants became ill or could not obtain an entry visa in a reasonable time, no substitutions could be made.
- Clinical learning sites selected for regional training programs must be, but were not, sufficient in terms of client volume to accommodate the needs of learners within the very rigid calendar of these time-limited events. One MT from the ACNM noted that site strengthening “may take months, not weeks” before a site is adequately equipped and prepared.
- The RH guidelines that guide clinical practice may differ from country to country. Learners who participate in regional trainings have to be forceful advocates for clinical best practice as they carry the lessons learned from regional training activity into their own country practice setting.
- There are substantial challenges to providing supportive supervision and follow-up for participants after they return home.
- There may be few stakeholders in the country of origin with whom regional training participants can make an immediate connection upon their return. This could lead to a sense of isolation or the perception of lack of support when participants see the need for advocacy for making necessary policy or clinical changes.

In the ACCESS experience, there were perceptions of sociocultural and linguistic differences between participants that created tension and interpersonal conflict. Three respondents specifically referred to this issue in individual interviews.

The benefits of clinical training in-country, MT respondents indicated, include a greater “multiplier effect” (more individuals can be trained); the presence of other learners in the teaching environment, leading to “crossfertilization” of teaching input; training tailored to the country’s clinical practices and work environments; and more opportunities for follow-up and replication. Respondents noted that preparation of clinical sites for in-country training can serve as a platform for advocating for sustainable clinical improvements.

The team also took into consideration the opinions of tutors and preceptors whose responses to the field survey offered perspective on the utility of their engagement in training events. They also offered comments addressing the ease of transfer of learning from the training site to their own practice facility. Some perspectives of graduates of training programs are also reflected.

Tutors from each of the three countries agreed on the value of the training itself. They were highly supportive of the value of both the teaching and BEmONC skills updates:

*I gained more knowledge and skills in managing most of the emergency conditions like MVA, MRP, etc. This knowledge assisted me in the delivery of content in class and skills transfer to the students. [Malawi]*<sup>1</sup>

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<sup>1</sup> The comments offered are not direct quotations but are transcriptions of the notes the interviewer took during the interview. They may therefore, contain some element of response bias, such as selective deletion or augmentation of the actual reply to the question posed.

*[I gained] confidence in all areas (classroom and clinical) and improved my teaching. It increased my motivation as self-confidence built. Changed my mind and I feel proud and I want to share this. [Ethiopia]*

Tutors also offered high praise for the training materials they were given and the way training was conducted (clarity of instructional language, variety of teaching strategies used). However, tutors from each country expressed three specific critiques of the training events: (1) there was not enough time to acquire both the theoretical and practical clinical skills; (2) the training venues were not conducive to student learning (too many other learners in the same place at the same time, e.g., nurses, midwives, clinical officers, medical students); and (3) educational resources were in critically short supply in both classroom and clinical settings.

Tutors from Ethiopia noted a constraint not mentioned in the other countries, i.e., co-worker resistance to implementation of best practices:

*[There is] resistance from untrained staff especially in our setting where the clinical and teaching is different. Lack of institutional management commitment to provide instruments, e.g., partograph, procedure guides, magnesium sulfate. [Ethiopia]*

*No materials available to implement the knowledge and skills, e.g., partograph, newborn resuscitation. No staff cooperation (resistance for new ideas). [Ethiopia]*

Preceptors also recognized the value of the training. Several referred to enhancement of their skills in performing emergency procedures:

*Initially I could know most of the skills technically, but after training I could perform them competently. As a preceptor I am able to teach students and colleagues confidently. [Malawi]*

*[I] feel that I give my clients the quality of care that they deserve. [Ghana]*

Preceptors from each country echoed the tutors, confirming the same three major challenges. They also noted the absence of certain content they thought should have been addressed:

*There were some important topics not covered: PMTCT, family planning, especially long-term and permanent methods, post-abortion care, and MVA. [Ethiopia]*

A graduate noted that:

*The institution has tutors with up-to-date knowledge to instill to students but needs adequate reliable books and computer and Internet services, and ... adequate tutors who will be able to teach and follow up students in clinical areas. [Malawi]*

Students and graduates particularly endorsed the clinical checklist approach to documenting the acquisition of skills:

*Clinical checklists were used, and this helps us learners to remember some of the important steps, which can be easily forgotten especially when there are life-threatening conditions. [Malawi]*

## **INSTITUTIONAL INVESTMENTS AND CONDUCT OF TRAININGS**

### **Training Centers**

Site strengthening was conducted prior to both regional and in-country trainings in both academic and clinical learning environments. A dedicated clinical teaching center was established in Ghana and a classroom was enhanced in Ethiopia. The sites were located at major affiliated teaching hospitals, Tema General Hospital in Ghana and the Yekatit 12 Hospital in Ethiopia.

The training institution in Tema is still benefiting from the manikins and other teaching materials that were provided, and other health workers are using them. The assessment team members observed a training for members of the Ghana Registered Midwives Association, for which manikins and models had been borrowed. The team also observed a breastfeeding teaching session on the maternity unit at Koforidua Regional Hospital, Ghana. The nurse who was instructing mothers about latching-on was using a breast model she had crafted during a preceptor training several years earlier. This is an example of sustained benefit to the institution, to the individual, and to families.

Tutors trained by ACCESS have conducted trickle-down trainings in other settings. For example, a preceptor at Korle Bu teaching hospital, Ghana, conducted trainings at Labadi General Hospital for which ACCESS bought equipment and models. She was allowed to take the models back for use at Korle Bu.

Similarly, a classroom at Yekatit 12 Hospital, Ethiopia, that ACCESS had fully equipped with materials for BEmONC training continues to be used for training a variety of health workers. However, it was not as well supplied with models and materials as the Ghana site.

ACCESS made contributions to strengthening clinical skills labs at several teaching institutions in each of the four ACCESS African countries. Models, manikins, simulators, and expendable supplies (e.g., suture materials, gloves) were provided for student use. Other donors also made contributions in some centers, including library enhancements. Although academic administrators and tutors greatly appreciated these contributions, they acknowledged that the materials did little to address the very large resource gap.

### **Clinical Site Strengthening (Affiliated Teaching Hospitals)**

Clinical training sites were selected because as referral hospitals they were likely to have more emergency obstetrical cases. The team was not able to assess whether the facilities selected were the most appropriate because it had no opportunity to evaluate alternative settings. However, MTs in each country suggested that the settings were in fact high-volume referral facilities affiliated with teaching institutions.

Expendable supplies for student use were contributed to the clinical training sites in each country (Tema General Hospital in Ghana, Lilongwe and Bwaila Hospitals in Malawi, and the maternity section at Yekatit 12 Hospital in Ethiopia). It was the project expectation that the MoH or regional health authorities would assume responsibility for longer-term maintenance of clinical setting physical infrastructure and provision of material resources.

However, the majority of midwives who served as preceptors or clinical staff members in facilities visited by the assessment team indicated a chronic shortage of various supplies and equipment. They acknowledged that this undermined their ability to provide high-quality clinical care that was safe for both provider and client. Tutors and preceptors were faced with the same challenges when teaching at these sites.

The field survey that was conducted included an assessment of the availability of supplies and equipment necessary for the clinical practice of BEmONC. The survey employed a convenience sample and the numbers of respondents in each country was very small, therefore, responses cannot be considered statistically reliable; nor can they be generalized. Still, there were notable similarities and remarkable differences among the three countries.

Three-quarters or more of preceptor respondents in each country indicated that there were adequate and reliable supplies of oxytocin, disposable syringes and needles, sterile delivery and suture sets, oxygen, IV fluids and giving sets, adult and fetal stethoscopes, and infection prevention supplies.

Magnesium sulfate was essentially always available in Ghana and Malawi. The drug is being introduced in Ethiopia in 2010, with the support of UNICEF, which is purchasing it for the first year while building capacity of the MoH for drug procurement and training providers in this clinical best practice.

Survey respondents in Ethiopia reported that the supply of antihypertensive and antibiotic drugs was not reliable. Preceptors and students in Ethiopia were also the only survey respondents to mention that partographs were not available. The assessment team conducted facility site visits in all three countries and observed that partographs were present in the client records in Ethiopia, though not in Malawi, but also observed that midwives were not (at least as far as could be seen) completing the record in either country. Midwives in both Ethiopia and Malawi stated that their consultant physicians had not adopted or endorsed this labor monitoring practice. The national BEmONC assessment conducted in Ethiopia in 2008 documented that completed partographs were found in only 30% of hospitals and 25% of health centers, and that even fewer facilities had the protocols necessary to guide the management of labor.

The responses of students and graduates to the same facility readiness items were much more variable than those of preceptors, but this may simply reflect relative familiarity with the practice environment. The majority of students in Ethiopia stated that misoprostol and magnesium sulfate were “near available.”

## **IMPACT OF TRAINING ON MIDWIFE SKILLS AND PERFORMANCE**

The vast majority of respondents interviewed for this assessment and of those who responded to the survey were enthusiastically positive about the value of the BEmONC and (in Malawi) PAC training they had received. Tutors who participated in the teaching skills courses also spoke very highly of the benefits they had received from this instruction.

The following are examples of “value added” given by tutors:

- The majority of tutors in all three countries were “very confident” in their ability to use five (of 14) specific pedagogical skills. Tutors in each of the countries were less confident about their ability to incorporate computer-mediated and audio-visual instructional technologies, or the problem-based learning approach.
- The majority of tutors in all three countries were at least “somewhat confident” that they could perform such lifesaving skills as vacuum extraction, management of malpresentation or shoulder dystocia, bimanual compression of the uterus, manual removal of the placenta, and emergency care of the newborn. These survey findings are notable despite the small number of tutor respondents because many tutors who were interviewed, some of whom were also survey respondents, stated that they had had very little experience in clinical practice before becoming teachers.

- Preceptors, students, and graduates similarly endorsed the positive effect of BEmONC trainings on increasing their competence in the skills mentioned and others, such as management of pre-eclampsia and eclampsia, and confidence in their ability to perform them. Respondents also recognized that the new skills would erode over time if there was no opportunity to perform them in either simulation or actual practice:

*But ... when the people to apply your skills on (clients with conditions like shoulder dystocia) are not available, you tend to lose your skills, reducing your confidence.*  
[Graduate, Ghana]

Interview participants and survey respondents expressed the need for more education (in-service, continuing education, refresher training) and enhancement of opportunities for clinical practice during and after training. They noted that most of their skill in BEmONC was acquired by simulation because opportunities to employ the skills in actual patient care were very limited. The clinical portion of BEmONC trainings were also time-constrained; there were other learners in the setting (some of whom had priority access to patient experiences, such as medical students) and, as several interviewees mentioned, implementation of certain clinical best practices had led to a lower incidence of certain complications of labor and delivery:

*Since the introduction of active management of the third stage of labor the incidence of postpartum hemorrhage has gone down.* [Tutor, Ghana]

Other interview respondents also acknowledged the benefits to clients that resulted from the woman-centered approach that was modeled in the trainings:

*Humanism in labor care should be basic, but our facilities don't allow that – so we need to change that.* [Nursing administrator, Ghana]

Students expressed concern about the lack of interaction between tutors and preceptors in the clinical setting:

*I would like to suggest that classroom tutors and clinical coordinators should coordinate so that time spent in the wards will bring out skills and competency in the student for a better professional standard to promote job satisfaction and good health to patients.*  
[Student, Ghana]

Tutors and preceptors acknowledged that there would be great value to teaching in both academic and clinical venues. The academic teaching skills of tutors could be enriched by observation of the bedside teaching skills of preceptors. Preceptors could contribute —realworld” experiences to didactic presentations of theory. Enhanced communication between tutor and preceptor would lead to clearer expectations about student performance and better feedback for performance improvement. However, respondents in all three countries noted that time constraints limited these opportunities for cross-teaching.

## **V. ACCESS ACHIEVEMENTS BY COUNTRY**

ACCESS midwifery pre-service activity in each country was based primarily on the needs identified in the baseline assessment. Actual interventions and accomplishments within each country assessed were influenced by the stage of development of the midwifery profession there, including country commitment to the education and practice of midwives as SBAs, key human health resources. Timelines for some activities were influenced by external factors (e.g., Ethiopia had completed a midwifery curriculum review just before the project began, so the opportunity for meaningful engagement in such a review was lost). Budget constraints limited the scope of its PSE activities,; however, ACCESS attracted complementary funding (from AFR/SD, country missions, other funding agencies) to expand PSE activities in Malawi and Ethiopia.

### **ETHIOPIA**

#### **Pathways to Midwifery Education and Clinical Practice**

As of January 2010 there were 22 public midwifery colleges and universities in Ethiopia. Four offer a four-year course of studies leading to a baccalaureate degree, major in midwifery. Eighteen offer a three-year course of technical studies leading to a technical diploma in midwifery. The public programs are complemented by two private degree-granting programs. Public technical schools have a standardized curriculum, but degree programs do not. Some diploma-granting schools are now transitioning to the four-year degree program, but technical support for preparing a higher-level curriculum is limited from government sources. There is no formal governmental or independent process for accrediting education programs.

The MoE plans to create a one- or two-year midwifery program following nursing education in order to greatly expand the recruitment base for midwifery education. Ten new midwifery schools are also planned for the near future.

#### **Student Recruitment and Admission**

Students are selected for enrollment in the technical colleges through a national government exam after they complete the 10<sup>th</sup> and 12<sup>th</sup> grades of education. Allocation is based primarily on test scores and only secondarily on expression of interest in a particular occupation or profession. The assessment team was informed that students with lower scores are allocated to midwifery studies, although the Director of Human Resources disputed this. Tutors noted that this method of assignment has a negative effect on the status of the midwifery profession and its perception by the community and enrolled students. A few students interviewed indicated that they were not even familiar with the role, responsibilities, and practice of midwives when they were assigned to the program.

The English language is taught as a course of study through the 10<sup>th</sup> grade of education. English is the language of instruction in the upper grades of secondary school and the technical schools and colleges. This means that students admitted to technical schools immediately after 10<sup>th</sup> grade may be less fluent in the language of instruction.

#### **Education and Professional Regulation**

The MoH is responsible for regulating the technical colleges but delegates responsibility to the Regional Health Authority. The technical schools use a standardized midwifery curriculum that was developed by education experts (the T-VET system) with minimum input from midwifery educators. There has been some review of the curricula of various schools. Respondents who had been engaged in those reviews said that in their opinion the curricula were not competency-

based. This sentiment was echoed by the MoH Director of Human Resources Development, who stated that

*What is needed in the future is a standard curriculum that is competency-based (fit for purpose) in order to produce quality human resources for health.*

Documentation indicates that the curriculum meets the international standard of 40% theory and 60% clinical practice. However, there is no guarantee that students will have access to clinical practice opportunities, and they regularly graduate with far fewer actual clinical experiences than is recommended by the WHO or even stated as the minimum educational standard. Graduates interviewed for this assessment said that they had delivered as few as five normal births. The opportunity to manage the care of clients who experience complications of pregnancy and delivery is even more limited.

The MoE, in collaboration with university administration and faculty, regulates the baccalaureate programs, for which the midwifery curriculum has not been standardized.

The Higher Education Quality Assurance Board, working under of the Drug Administration and Regulatory Authority, sets standards for facilities and professions, accredits schools, and conducts discipline reviews. However, in the opinion of informants, its standards focus mostly on infrastructure rather than the quality of education programming.

Ethiopia has no midwifery regulatory authority or examination for entry into practice. Graduates are eligible to practice throughout their lifetime. There is no system, optional or mandatory, for continued education or re-licensure. The assessment team was informed that one Regional Health Authority had initiated development of such a process; however, regional activities would have little overall impact.

## **Health Human Resources**

### **Deployment and Retention of Midwives**

The MoH Director of Human Resource Development acknowledged a gap in numbers, knowledge, and skills among the midwifery workforce. He pointed out that the human resources strategy (in draft form at the time of the assessment) calls for rapid expansion of the cadre and acknowledged the value of team-based training through which the skills and scope of practice of various health workers become known to each other.

The MoH assigns graduates of the public midwifery PSE institutions to regions, where the Regional Health Authority assigns their placement. It is the responsibility of the Health Authority in health centers and of administrative directors in hospitals to provide supportive practice supervision. Recent graduates stated that they had not received any job description or orientation and did not know who would supervise their work. Though the experience of this very small sample may not be typical, it suggests that there may be a critical gap in one element essential to an enabling environment for midwifery practice. ACCESS has a Standards Based Management–Recognition (SBM-R) program that the MoH could be encouraged to adopt.

The Hamlin College of Midwifery (COM) has a model for recruiting midwifery students from a community and for retention and support of graduates after they are deployed to the same community. Much can be learned from studying this model for scaling up throughout the country. The Minister of Health referred to it specifically, remarking on the strategy of “*clinical from day one*” and student immersion in the community as a means for better understanding social dynamics that may drive behavior or facilitate behavior change. He also remarked, “*We need to detach ourselves from traditional ways of teaching only with university training,*” indicating his support for competency-based training and community-based placements.



## Investment in Other Cadres

The government has invested heavily in training for two cadres of health workers who are expected to use such midwifery skills as conduct of clean and safe delivery in their clinical practice. **Health Extension Workers** are 10<sup>th</sup> grade graduates who receive one year of training in a technical college. ACCESS/Ethiopia has supported clinical site strengthening and skills training for trainers (drawn from the Ethiopia Midwives Association [EMA]) of this cadre in the Oromia Region, where over 360 workers have been trained. The MoH has trained another 5,617 to date

ACCESS informants note that they were reluctant to help train this cadre but felt that they needed to be responsive with USAID/Ethiopia to the MoH request that they do so. The investment of time and money in training these cadres has likely shifted attention and resources away from the education of midwives as a preferred cadre of SBAs. There is compelling evidence worldwide that training ~~traditional birth attendants~~ does not contribute to the reduction of maternal mortality and is not a sustainable strategy (Sibley & Sipe, 2006; Sibley et al., 2007). The WHO representative agreed and noted that WHO did not support this training.

**Health Officers** are nurses who complete an additional three-year training program at institutions of higher learning. (The Carter Center/Ethiopia is engaged in this program in 21 university-affiliated hospitals.) ACCESS provided BEmONC training, a training-of-trainers course on clinical teaching skills, or both, to 52 Health Officers from eight hospitals and five education institutions.

## Collaborative Contributions to Midwifery Pre-service Education

**WHO, UNICEF, UNFPA, and the MoH** collaborated with Columbia University's Averting Maternal Death and Disability program in 2008 to conduct a national EmONC facility-based survey. Findings from the study indicated that only 0.05 midwives were available for every 100 expected deliveries, compared to the standard of 1 midwife per 100. *Using the ratio of one midwife to 5,000 population, the ratio is 0.08.* (Executive Summary, p. 5). Ethiopia had achieved only 35% of the 2010 training target for midwives cited in its Health Sector Development Programme.

**IWHO, with UNFPA as partner**, conducted a National Situation Analysis of Pre-service Midwifery Training in Ethiopia in 2007, and published the report in January 2008. The number of midwives was found to be just over 1,000 for a population of nearly 80 million. WHO, in collaboration with the MoH and ACCESS, has held a series of stakeholders meetings to disseminate the findings of this report in order ~~to~~ *advocate for and work on collaborative support in strengthening pre-service midwifery education in Ethiopia.*

**WHO** administers a US\$20 million Flagship Program that will be implemented over the next two years by the H4 +1 group (UN, UNFPA, UNICEF, World Bank, and WHO). H4 + 1 will support the MoH as it finalizes its Human Resource for Health Strategy in collaboration with NGOs and donors. Midwifery is expected to be a large component of the plan of action.

**The UN** has included investment in selected midwifery pre-service education as a component of its contribution to the coordinated work plan for the Flagship Program. **UNFPA** will work in another seven educational institutions. However, doubt was expressed that even this combined programming would be able to reach all of Ethiopia's education programs, since the HR Strategic Plan for Workforce Development calls for opening several more schools very soon.

The **UNFPA and the International Confederation of Midwives (ICM)** ~~Investing in Midwives~~ program was initiated in 2008. UNFPA is supporting the presence of a midwife advisor in the country. It is recognized that midwifery must gain a presence on government task forces and committees: *"As long as we don't reach up to the government, we will never have input."*

UNFPA and the EMA recently completed an assessment of the capacity of seven midwifery schools and plan to scale this up to 15 over the next year of funding. The work plan includes building the capacity of trainers (using materials ACCESS developed) and providing materials and equipment. UNFPA has expressed its hope that other agencies will join the work plan and cover the remaining midwifery education programs with similar activities. It would like to explore adaptation of Jhpiego's SBM-R approach to standardizing and improving the quality of pre-service education in midwifery schools.

UNICEF is not engaged in midwifery PSE but does plan to continue BEmONC in-service activities for current providers. Its representative stated that *“We need more long-term investment [in BEmONC]”* and that the organization is looking for long-term partnerships to accomplish this. UNICEF asked USAID to become a funding partner as it rolls out BEmONC in-service to both nurses and house officers (target: 1,000 providers in the next 10 years). It expects to ask Jhpiego to provide technical assistance for this training and EMA to identify association members to be prepared as master trainers for the roll-out.

### **ACCESS Achievements in Pre-service Education of Midwives**

ACCESS worked with WHO/AFRO for five years to implement the Africa Regional Pre-service Midwifery Education Initiative to improve midwifery education in Ghana, Malawi, Tanzania, and Ethiopia. Ethiopia has 24 public and private midwifery education programs, 5 granting bachelor's degrees (4 public and 1 private) and 19 granting diplomas (18 public, 1 private). Jhpiego/Ethiopia used ACCESS core funds to conduct BEmONC training for at least two tutors from each of 11 diploma schools (61%) and 2 universities (46%), thus interacting with half the midwifery training institutions in the country.

A total of 36 individuals were trained using ACCESS core funds over the life of the project:

- 2006: 4 MTs (including 1 preceptor)
- 2007: 15 tutors and 2 preceptors
- 2008: 15 tutors

Some tutors participated in regional clinical training activities in Ghana, others in educational skills or BEmONC training in Ethiopia. One follow-up activity was conducted in 2008.

Jhpiego/Ethiopia also identified funds available from other sources (e.g., ACCESS project close-out funds) to support the training of additional tutors, with the intent to train all tutors in the 13 schools ACCESS originally targeted. ACCESS also extended its outreach to all the tutors in the private Hamlin COM in both teaching and BEmONC clinical skills training courses. Essentially all informants interviewed acknowledged those numbers to be a laudable contribution but not sufficient for the country's needs even in the short term.

### **Benefits of ACCESS Programming**

Nevertheless, there was great appreciation expressed at every level. Informants in the MoH and collaborating partners spoke highly of the value and quality of the trainings ACCESS conducted in both educational and clinical best practices.

Several of the tutors who participated in ACCESS PSE trainings are still employed in their original teaching institutions; a few have risen to positions of leadership. Participation in training has motivated others to pursue higher education.

ACCESS had limited opportunity to influence development or revision of the PSE curriculum. However, it was able to offer assistance to Hamlin COM by providing curriculum and other materials generated by its work in Afghanistan.

## Challenges to Past and Future PSE Programming

ACCESS faced major challenges in enabling program participants to gain access to clinical practice opportunities. This is the day-to-day challenge tutors face as they attempt to incorporate BEmONC skills into the midwifery PSE curriculum. Simulation labs in the schools, which are shared with nursing students, have very limited equipment and supplies.

There is great demand for access to clinical learning by a variety of health cadres (including nonprofessional cadres being trained in clean and safe delivery) and by students from private nursing and midwifery schools. Students have access to maternity wards only during daylight hours in some settings, because of the lack of qualified preceptors and because too few staff are assigned to the night shifts.

There is presently an unsupportable ratio of tutors to students, and the ministries are encouraging even higher enrollment. This problem is compounded by a lack of qualified midwifery tutors. Teachers are assigned by the relevant ministry ( MoH or MoE) and are selected from among B.S. graduates. Some tutors acknowledged that they were assigned to teach midwifery even though they had no recent clinical practice experience. Nurses with no midwifery training are teaching midwifery in some cases.

The team was informed that there is some reluctance on the part of obstetrician consultants to adopt new clinical best practices themselves and therefore a reluctance to support midwives in performing skills acquired during their BEmONC training. The team looked at the recording and reporting records on two maternity units and saw that though a partograph record was available, it was not filled out. The midwife-in-charge stated that the consultant physician had dismissed the value of the partograph and would not take seriously the midwives' request for consultation based on the action line. (The 2008 National BEmONC assessment report contains substantial information that supplements these findings.)

Ethiopia is well behind other countries in adopting certain clinical best practices. The MoH representative noted that there are obstetric management protocols in facilities but as yet no national reproductive health guidelines. The assessment team noted gaps in the availability of certain drugs and supplies, such as magnesium sulfate and vacuum extractors, though this situation is being partially addressed by other cooperating agencies (CAs) in their current and future programming.

The critical need to disseminate best practices throughout all clinical institutions and to engage all health providers in in-service education about them is acknowledged. Some information elicited suggested that the MoH had begun to address this gap by, e.g., delegating authority to regional administrators to set practice standards and by the recent drafting of hospital-based standards and a code of ethics (done jointly by the Department of Human Resources and the MoH). These two initiatives have been introduced into a very few settings in two regions, though the intention is to apply them nationally.

It is worthy of note that very recent changes have been made to the labor and delivery log book in some settings, and these changes, are anticipated to be rolled out across the country. Certain indicators related to maternal and newborn morbidity (e.g., whether the components of AMTSL had been performed) have been deleted from the maternity log, and indicators related to prevention of maternal to child transmission of HIV/AIDS substituted in the column space. The Minister of Health and other CAs attribute the actions directly to recent changes in the Health Information Management System (HIMS) that reduced the total number of indicators from nearly 400 to 108. It was acknowledged that this will cause critical gaps in the information needed to follow progress toward MDGs 4 and 5 unless the recent changes are reconsidered.

Finally, the profession of midwifery currently has a very weak voice in the country. It must reach a level of recognition and respect that will enable its professionals to be acknowledged as advocates for the primacy of midwives as SBAs. UNFPA is assisting the EMA to pursue this agenda.

## **GHANA**

### **Pathways to Midwifery Education and Practice**

Ghana's pathways to midwifery up to 2007 included several variations of a combined nursing and midwifery program of studies. New graduates of nursing programs would work for two to three years to gain clinical practice experience, then return for a one or two-year program of midwifery studies. All these programs have been closed.

A new three-year postsecondary diploma course of direct-entry midwifery studies was initiated in 2007. Ghana now has 13 pre-service midwifery programs that produce about 350 graduates annually. The first midwifery degree program is now being developed at Kwame Nkrumah University of Science and Technology. The country's Human Resources for Health Development (HRHD) Director also encourages the involvement of private schools, but there are few in the country.

The HRHD Department has just declared that 10 new diploma schools are being opened in 2010. This decision followed a national survey (2005) that predicted that up to 80% of midwives would retire in the next decade. There is also a plan to re-establish a post-nursing pathway in which nurses could obtain midwifery preparation in a two-year course of studies. This re-visioning of the older pathway is in response both to Ghana's HR needs and to requests from community nurses, who have asked for a midwifery career pathway.

Teachers for the schools are selected by the HRHD Department from among university graduates. However, they may not have had teacher preparation or possess current clinical skills in midwifery practice. Graduates of the University of Cape Coast are an exception because it specifically prepares teachers for various professions.

### **Student Recruitment and Admission**

Students are selected for admission to the postsecondary diploma schools based on test scores and stated education and career preferences. Aspirants indicate a specific interest in midwifery as a career. Some regional schools have had fewer applicants to midwifery education programs in recent years, but there is still reluctance to admit the overflow of applicants residing in other regions out of concern about expending resources to educate practitioners who wish to be deployed to another region.

The MoH is currently deploying a decentralization scheme in which regions will now be responsible for supporting the midwifery schools in their administrative areas. Student fees would be retained in the region in order to strengthen established programs. Three regions (Central, Western, and Greater Accra) were the first to be involved in this new strategy.

### **Educational and Professional Regulation**

The Nursing and Midwives Council (NMC), the government regulator, is charged with setting faculty and curriculum standards for schools and standards for entry into practice of the profession through a national credentialing examination. The NMC reviews and approves the standardized curriculum but there is no formal accreditation process. The NMC representative stated that the council at times feels political pressure in both credentialing and standard-setting.

The NMC representative also stated her concern about the recent mandate to open new schools, given the critical shortage of qualified tutors. The NMC is presently adapting the log-book used in assessing the work of basic students when they are in clinical practice. NMC anticipates that new midwife teachers can use the same checklists as they immerse themselves in clinical practice so that they can demonstrate their competencies as clinicians. However, that cannot address lack of preparation in teaching skills. The NMC representative said, *“We need tutor training and clinical site upgrades”* in all schools, current as well as new.

These concerns are reflected in recent licensure examination statistics (see Table 4). Three attempts are allowed. The pass score is set at 50 for the written portion of the examination and at 65 on a composite measure of *“final project”* and *“clinical assessment”* scores. These scores are combined and transposed to a single pass/fail score.

TABLE 4. PASS-FAIL STATISTICS FOR GHANA'S NATIONAL LICENSURE EXAMINATION					
Year	N	Pass		Fail (Referred)	
		N	%	N	%
Dec 2006	121	68	56.19	52	42.9
April 2008	191	147	74.74	50	25.25
Jan 2009*	355	210	59.0	142	40

\* 3 registrants missed the exam.

The pass/fail standard is currently set rather low considering how critical the professional responsibilities of midwives are. The relatively high failure rate should therefore be of concern, particularly when the number of education programs is to be expanded, since current programs clearly need assistance to enhance teaching practices and learning outcomes.

Ghana has two active midwifery professional associations. The Ghana Registered Midwives Association, which advocates for midwives in private practice, has been active for almost three decades. The MoH, assisted to some extent by the NMC, is promoting the Ghana Public Midwives Association. There is at present a tension between the two organizations that should be resolved in the interest of creating a stronger voice for advocacy in Ghana's policy forums.

## Health Human Resources

### Deployment and Retention of Midwives

The current midwife/client ratio is 1:5,000. Ghana's Strategic Plan for Human Resources has the goal of graduating 1,000 midwives each year so as to reduce the ratio to 1:1,000 by 2020.

The HRHD Director stated his opinion (affirmed by the NMC representative) that Ghana has not experienced any substantial emigration of nurses or midwives. The policy of the department is that midwives are deployed to a post for not more than four years and must stay for at least two, but many midwives ask to stay in a post longer than four years. The director stated that midwives *“have a long life...over 35 years,”* particularly those who serve in their home communities.

The director also noted that the government had recently been looking at creating a pay scale that promotes parity among health professionals. His department is working on incentives for midwife retention, such as in-service education on content of importance to them. The certificates of recognition that would be awarded upon completion of these programs would have some value at the facility level in terms of personal acknowledgement or a tangible reward.

## Investment in Other Cadres

Midwifery is an established and well-respected profession in Ghana. The government is not likely ever to reduce its support for midwife education. However, Ghana has invested heavily over the past decade in the promotion of the Community-based Health Planning and Services Program (CHPS), in which the Community Health Officer (CHO) is the primary provider of services. The Focus Region Health Project (FRHP) is a new USAID/Ghana-supported project implemented jointly by JSI Research & Training Institute, Inc., and World Education. FRHP will work at the community, sub-district, district, and regional levels in the Greater Accra, Central, and Western Regions, training practical nursing students and CHOs in selected safe motherhood interventions. There are no plans to include delivery skills within this training, although there has been serious discussion about that in the MoH.

## Collaborative Contributions to Midwifery Pre-service Education

There are numerous donors to MCH programming in Ghana, including the World Bank, DANIDA, and DIFD. However, most of them provide direct support to the MoH budget, not pre-service midwifery education.

WHO made a contribution to ACCESS-sponsored regional training in Tema in the form of in-kind support related to the transport of individuals and materials to the learning center. It has no current plans for further investment in pre-service midwifery education, but it is in favor of midwives as preferred providers of skilled birth care and of pre-service education so that midwives are prepared to provide quality service as soon as they enter into practice.

## ACCESS Achievements in Pre-service Education of Midwives

ACCESS programming in Ghana focused initially on the training of trainers, then on training tutors and preceptors from schools within the country. Four pre-service tutors/preceptors completed the regional three-week BEmONC training at Tema Regional Hospital. Trainer teams then conducted two more in-country trainings, one at La General Hospital for 16 provider staff and 16 pre-service tutors and preceptors, and the other at Koforidua Hospital for 27 provider staff and 16 pre-service tutors/preceptors. Three other pre-service tutors completed a regional six-day instructional design course in Ethiopia. A follow-up assessment was conducted in 2008 for those trained in the first year of the project.

Each of Ghana's 13 midwifery schools (100%) was covered by the ACCESS program. Ten of the schools received BEmONC training, and three tutors from the other three schools were trained in clinical training skills.

## Benefits of ACCESS Programming

ACCESS did not have an opportunity to help develop or to review the three-year direct-entry curriculum implemented in 2006–07. However, Jhpiego/Ghana is prepared to offer curriculum development assistance to the degree program and the new post-nursing programs that are being developed.

Key informants in Ghana acknowledged the great benefit of BEmONC training, noting the unquestioned benefit of increasing practitioner's skills in life-saving interventions. However, compared to those in Ethiopia and Malawi, respondents in Ghana found it more difficult to attribute benefits directly to the ACCESS project. USAID/Ghana informants noted that there were many programs being implemented concurrently with ACCESS, often on the same issues. WHO key informants echoed this sentiment.

The Jhpiego/Ghana country director said that the greatest accomplishment of the program was that *"it built a hall of champions of safe motherhood"* in the country. The quality of the MTs

prepared is so well recognized that they and ACCESS spokespersons were almost always invited to participate in high-level discussions about MCH programming for the country.

### Challenges to Past and Future PSE Programming

Midwifery education programs in Ghana are challenged by chronic shortages of human and other resources: There are too few qualified teachers. The simulation laboratories are shared with nurses and other learners and lack sufficient manikins, models, and disposable supplies. There are few library resources and even fewer computers with Internet access the teacher to student ratio is very low in academic settings.

The clinical situation is similarly challenged. Many health provider cadres seek access to clinical practice at the same institutions, at the same times as midwives.

The most critical shortcoming of the ACCESS approach in Ghana, in the opinion of the country director, was that the program did not have a “country focus”—the program did not aspire to reach high enough up in the political hierarchy to influence decision-making, such as changes in reproductive health guidelines that could have been rolled out in very visible ways (e.g., mandatory country-wide provider skills training or inclusion of BEmONC in the pre-service curricula of reproductive health providers). She noted that *“Hpiego does not include advocacy in our training activities... We raise capacity for something [e.g., MVA] but then don’t work to help midwives get the policies changed.”*

## MALAWI

### Pathways to Midwifery Education and Practice

A number of pathways to midwifery have existed in Malawi over the years. Today there are 17 training institutions and two active pathways to nursing and midwifery.

Three schools offer Level 1 education to postsecondary students; they complete four years of university study leading to the designation State Registered Nurses Graduates obtain work experience and can then return for a one-year intensive course in midwifery. This pathway is being modified to integrate nursing and midwifery studies by 2016.

Level 2 education is offered through a three-year post-secondary integrated curriculum for the Nursing/Midwifery Technician (NMT), which was inaugurated in 2006. The first cohort of students to complete the course has just recently graduated.

The Christian Health Association of Malawi (CHAM) educates about 40% of the nursing/midwifery students in the country in its private institutions, under contract to the MoH, which pays the tuition and fees in order to increase enrollment beyond what government institutions can accommodate. (The MoH also paid fees for private students in these schools until very recently, when funds were exhausted.) The MoH has recently requested all schools to increase the number of students; however, it is difficult for all schools to find sufficient clinical practice sites and opportunities for students already enrolled.

ECSA assisted with development of a career pathway for midwives, who may now pursue a master’s in midwifery. A master’s in reproductive health is also available. Both graduate degrees were inaugurated in 2008. A pathway for direct-entry midwifery has been discussed, and Kamuzu College of Nursing has developed a pilot program, sponsored by the Malawi Midwives Association. This pathway is supported by the MoH and the Malawi NMC, but a decision about its “level” (which translates into pay grade) has not yet been made. Representatives of the Medical Council said they could support a direct-entry midwifery pathway because the applicants

to it would be pursuing a profession of choice, leading to job satisfaction and job stability. Other respondents noted that if the individual is not also dual-credentialed in nursing, work assignments would be restricted to the MCH wards, which would build a more focused and experienced workforce for the maternity units.

Teachers in university schools are appointed directly from teaching colleges and must have a degree in nursing education. However, midwife educators may not have much, if any, actual practice of midwifery. This situation may be improved when the integrated university nursing/midwifery curriculum is introduced. Tutors in the NMT programs are selected by the MoH from among nurses who have attended college, even though they may not have selected education as a career goal and may also lack the necessary clinical skills.

### **Student Recruitment and Admission**

Students are admitted to the colleges on the basis of qualification test scores and a statement of interest. The NMC reviews the credentials of students admitted by a college and selects those who will be enrolled in nursing/midwifery studies.

### **Educational and Professional Regulation**

The Nurses and Midwives Act was passed in 1995 to regulate nursing and midwifery education and practice in Malawi. The NMC is the implementing authority. It sets standards for education programs and is responsible for the credentialing examination required for entry into practice. There is no formal education program accreditation.

The year 2009 saw the highest rate of failure ever on this examination (one source said ~~–~~approximately 50%,” another ~~–~~approximately 135 of 419”). The pass score is 65% (on the lower end of the pass/fail scale by international standards) and previous pass rates have been as high as 95%. The NMC said that it has done due diligence to identify the reason for this variance. The current version of the examination includes questions on BEmONC, consistent with incorporation of that content into the NMT curriculum. The NMC thought the problem might lie in the lack of student clinical experience in that area. If so, there should be some concern about opening new schools and expanding enrollment when there is already a shortage of opportunities for clinical experience.

Nurses and midwives are currently licensed for life. A re-registration scheme with a continuing education requirement, similar to the current scheme for medical doctors in Malawi, is currently being pilot-tested.

## **Health Human Resources**

### **Deployment and Retention of Midwives**

The profession of midwifery is highly respected in Malawi. The NMC has some voice in public policy. Informants noted, however, that midwives are not sufficiently assertive on their own behalf, which can reduce their effectiveness in influencing policy and practice at the facility level.

New graduates from the public institutions must work for the MoH for five years. However, after three years, as an incentive to retain them in the public sector, an application for further study is accepted. The vacancy rate for nurses and midwives has historically been about 45%. The vacancy rate for the recently created NMT staff line is 75%.

Government policy is to move staff between facilities every two to three years, and facility policies require staff rotation between nursing units. Graduates of the nursing and midwifery colleges in Malawi currently have a dual credential and can therefore be assigned to a wide variety of health facilities or work units. Transfers can occur even when a midwife specifically



requests continued assignment to the maternity unit. Therefore, unless supervisors recognize the benefit of the BEmONC skilled preceptors (including the value of specific training in midwifery rather than generalist training in nursing), the advantages of BEmONC and PAC training may be lost through lack of use.

In an effort to stem the substantial problem of emigration DFID provided a 51% top-up of the salaries of those employed in the CHAM private hospitals over the previous six-year period. The Director of the Reproductive Health Unit (RHU) and representatives of the Medical Council noted that this intervention *“has produced tangible results”* in stopping emigration, but there is concern that the situation might reverse itself now that funds have been depleted. The next Sector Wide Approach Plan (SWAP) is being written, and an extension of this incentive is being considered for inclusion in that plan.

A recent Public Health Service Commission retention study generated a number of suggestions for incentives to promote retention of providers in rural health facilities. However, the RHU Director said, very few of the recommendations have been acted on due to financial constraints. GTZ is presently working with the MoH to test the feasibility and acceptability of several retention strategies. A *“pay for performance”* scheme was not well received in early discussions, but three other strategies hold promise: (a) locum placements (payment to recently retired workers to assume temporary positions to cover workplace absences); (b) training relief (for participation in continued education); and (c) training allowances.

#### Investment in Other Cadres

Malawi reviewed its reproductive health policy in 2009. The new policy endorses skilled birth attendance and facility deliveries as a desired standard. A new role is envisioned for traditional birth attendants that is consistent with the contribution they can make in communities as advocates for facility-based care.

Medical Council informants stated that guidelines for management of MCH skills, including BEmONC skills, have been incorporated into the curriculum for medical assistants and clinical officers (nonphysician health providers). However, as far as respondents knew, BEmONC skills have not yet formally been introduced into the pre-service curriculum for medical doctors. In-service training for physicians in BEmONC has not yet been pursued to any degree of scale, so the majority of physicians have not been trained or re-trained.

#### Collaborative Contributions to Midwifery Pre-service Education

WHO chairs the MoH’s Sexual and Reproductive Health Technical Working Group, a coalition of MoH donors and funders who work together to standardize education and technical programming. WHO, as a direct donor organization, is also presently conducting BEmONC training in 10 districts. WHO uses the MoH *“Harmonized Manual for Integrated Management of Maternal Newborn Health,”* which was developed with input from ACCESS (Jhpiego), USAID, and UNICEF in its trainings.

The African Development Bank (AfDB) contributes funds to the country’s SWAP but only for specific activities. One project completed in 2007 focused on midwifery training. A current project is to enhance the infrastructure of health centers to support BEmONC and to establish maternity waiting homes. The AfDB informant noted that Malawi has a *“culture of not documenting”* that is a disincentive to providing additional financial support because *“total need and impact of trainings are not addressed.”*

GTZ (German Technical Cooperation) works directly with the MoH HR Department. The department is making a major effort to document the status of pre-service education and in-service training opportunities for all cadres of health workers. The critical lack of MoH and NMC data concerning personnel issues severely inhibits effective planning for every kind of training .

Global AIDS Interfaith Alliance (GAIA) is working with Jhpiego/Malawi to continue the BEmONC training ACCESS initiated, noting that the country's needs for BEmONC training are too large for any single organization to meet. They have applied for Mission funding for the work, which will use Jhpiego/Malawi curriculum materials and personnel.

UNFPA plans to provide support to CHAMS nursing/midwifery students by sponsoring 150 tuition scholarships for basic students and another 12 for Master of Midwifery students at Kamuzu College of Nurses. It has chosen to work to strengthen BEmONC skills in the five districts where it presently operates and two new districts; each district is one not targeted by other donors (including the MCHIP program). If there is a nursing/midwifery school in the district, UNFPA *will take care of the needs* for equipment and supplies.

### **ACCESS Achievements in Pre-service Education of Midwives**

ACCESS has trained 51 tutors and 46 preceptors, sometimes with the help of funds from other donors, such as the AfDB. Clinical training skills were enhanced for 20 tutors and 2 preceptors. A two-week BEmONC course was augmented by a one-week PAC course because abortion is the third leading cause of maternal deaths in Malawi. Follow-on trainings for service providers in five districts extended the benefits of BEmONC training to another 121 individuals. The advantages of participating in training were fairly distributed across the country's public and private health facilities. Those trained in the first educational activities did not receive follow-up supervision.

#### **Benefits of ACCESS Programming**

ACCESS had the opportunity to be deeply involved in the expansion and standardization of the curriculum and syllabus for the new NMT cadre, in partnership with the Malawi NMC, the MoH RHU, and other stakeholders. BEmONC is fully integrated into that curriculum.

#### **Challenges to Past and Future PSE Programming**

ACCESS has trained too few tutors and preceptors compared to the need. It reached 32% of the desired target (all tutors in all schools, N=160). Respondents commented that time for theory and clinical practice was

- too short (too much to learn in the time allocated; insufficient clinical practice opportunities)
- too long (prolonged absence from teaching and service duties) given the critical shortage of staff
- too intense (a great deal of pressure to learn; heavy competition for opportunities to practice).

ACCESS placed one adult and one infant manikin in the simulation labs of two schools. All other schools and affiliated training facilities are in urgent need of these teaching resources.

ACCESS collaborated with the MoH RHU and stakeholders to put together the BEmONC pre-service supervision tool currently in use. All 12 clinical training sites and all 13 midwifery colleges were supervised during 2008–09, but respondents remarked that the plan for supervision and follow-up of those trained in BEmONC was not fully defined. It relied on the standard MoH supervision system, which is concerned more with institutional issues (e.g., compliance with infection prevention procedures) than with individual clinical performance.

There is an unmet need for training of other clinicians in practice settings, therefore there was some struggle for students to implement skills learned during training. Focus group participants told compelling stories about adverse outcomes for women in part because physicians failed to respond to a midwife's request for consultation based on what she had learned, or because the midwife had not been given authority to exercise certain skills.

RHU informants and representatives of the Medical Council both denoted strategies they have employed to disseminate information on best practices and to inform administrators and practitioners that trained midwives are competent to perform BEmONC . Nevertheless, the expanded scope of practice of several midwives was challenged both by other providers and by the lack of equipment and supplies in practice settings.



## VI. CONCLUSIONS AND LESSONS LEARNED

The general finding of the assessment of ACCESS programming in Ethiopia, Ghana, and Malawi is that there was clear benefit to stakeholders at all levels:

- Individual midwives acquired competence and confidence in performing life-saving skills.
- Teachers enhanced their classroom and bedside clinical teaching skills.
- Preceptors acquired new teaching and clinical practice skills that they could transfer to both students and colleagues.
- Education programs benefited because teachers and tutors built their capacity to perform their role, and there was at least some enrichment of clinical simulation laboratories or of dedicated teaching/learning sites at affiliated hospitals.
- Health facilities benefited when providers skilled in BEmONC returned to their work sites and began to practice their new skills and model them for both peers and other health cadres.
- Women and families were better served. For example, there is at least anecdotal evidence that the incidence of postpartum hemorrhage fell after AMTSL was introduced as a clinical best practice. Midwives can offer examples of saving the lives of some women and newborns when BEmONC skills are applied promptly.
- Countries were better served when professional associations could advocate for and contribute to shaping educational and practice policies, because they are best positioned to describe the scope of professional practice according to international standards.
- MoHs benefited from the BEmONC training model and materials and the cadre of highly trained MTs who were available for other trainings.

Still, there were barriers that limited the effectiveness of ACCESS programming. There were also lessons learned in these three countries and in Tanzania and Afghanistan, where ACCESS conducted similar midwifery pre-service education activities, that can guide the design of future programs: .

- MoHs and regulatory authorities for both medicine and nursing/midwifery must be engaged in planning programs that will enhance or expand the scope of practice of midwives so that their skills can be acknowledged, valued, supported and facilitated at both policy and practice levels.
- The development and advancement of the midwifery workforce within a country is advantaged by the active engagement of a professional association that can advocate for policies to strengthen the education and clinical practice environments of midwives. Technical assistance should be provided to strengthen, or to establish where necessary, midwifery professional associations.
- Training is expensive in both time and money. Short-cuts to a standardized, competency-based teaching/learning cannot be taken without some compromise to quality. This investment must be understood and appreciated — and agreed to— in advance of any commitment to engage in programming.

- Particular benefit was derived when BEmONC skills could be incorporated into the midwifery pre-service curriculum. These basic skills that need to be in the repertoire of midwives when they enter the workforce. Teaching these skills in pre-service will, over time, reduce the burden of in-service training to enhance basic skills.
- The training burden must be the first consideration when planning a training intervention. Planning for CSS/TU courses (e.g., BEmONC and related content) should take into account the time that will be required for participants to acquire and demonstrate competence in learning outcomes (e.g., minimum number and range of hands-on clinical experiences required by lesser and more experienced learners; the potential for access to clients with relevant clinical concerns (i.e., clinical incidence in the affiliated teaching hospital; learning needs of other cadres in the same setting); and the tutor/learner ratio that is appropriate for the mix of learner). This information may be available in the literature or from NGO resources, but basic research may be needed.
- This same lesson learned applied to midwifery pre-service education: Standardization of midwifery curricula, including clear statements of the expected outcomes of competency-based midwifery education, is an internationally recommended best practice. Country-based program accreditation may offer a means for strategic thinking about appropriate limits for number of schools established, qualifications of teachers/tutors assigned to teach midwifery courses, and enrollment that can be accommodated so that each student has the opportunity to acquire and demonstrate competency. Regulatory authorities should be established where necessary, and, in those countries where they are already in place, they should be provided with technical assistance to explore accreditation as a next step in advancing professional midwifery.
- Recruitment and admissions policies for midwifery students should encourage enrollment of the more qualified and better educated candidates, preferably at the postsecondary level, and with the option of a direct-entry pathway to midwifery.
- There is little advantage to engaging in BEmONC programming or midwifery PSE if the learning (simulation labs) and clinical (maternity ward) environments do not support the acquisition of skills in the short term or their practice over time. Those in charge of educational institutions and health facilities must make the investment in an environment that enables learning and practice. This includes basic equipment and supplies; equally important, it requires that peer practitioners, supervisors, and other medical practitioners are also kept current in evidence-based practices.
- All participants and stakeholders must contribute to the documentation of data for decision-making. It will take time to demonstrate the effect (or impact) of incorporating BEmONC skills into a midwifery pre-service curriculum, and unless there is a culture of documenting practice of these skills (e.g., client records, maternity care logbooks), it will never be possible to measure impact, especially progress toward Millennium Development Goals 4 (reduce child mortality) and 5 (improve maternal health).

## VII. RECOMMENDATIONS

1. **USAID, country Missions, and collaborating partners should continue to invest in midwifery pre-service education, incorporating the policy and program enhancements addressed in these recommendations,** in order to maximize strategic investments already made and to create the multiplier effect that is necessary to expand the cadre of SBAs.
2. **USAID should link its PSE programming with country-based policy advocacy, capacity-building, initiatives for human resource retention and system strengthening, and strategies that promote an enabling environment for the delivery of quality health services.** Ministries and other authorities must take the lead in ensuring that clinical teaching and practice sites are fully and reliably supplied and equipped.
3. **USAID and country Ministries should make a substantial investment in building up teaching institutions.** Ensuring the quality of the educational environment (simulation labs, Internet and library resources) is fundamental. Preparation of enough well-qualified teachers and preceptors is also critical to reduce the teacher-student ratio to match international standards. A review of student admissions policies and practices should be encouraged so as to promote selection of students who are highly motivated and best qualified for the profession to which they aspire.
4. **USAID-supported PSE programming should include assistance to educational institutions to enhance and broaden the scope of educational environments.** Tutors and preceptors should be encouraged to engage with one another in both classroom and clinical settings and share responsibilities for academic and clinical teaching. The link between classrooms and communities must be strengthened so that students can help address community health problems and have the opportunity to acquire clinical skills in community settings in addition to the academic-affiliated health facilities and referral hospitals. This strategy might also address aggregated “regional teaching” through which resources can be shared.
5. **USAID should encourage continued investment in programming that strengthens the midwifery pre-service curriculum** to ensure that curricula are standardized, evidence-based best practices are included as core content; the approach to teaching and learning is competency-based approach, and expected outcomes of learning (core competencies) are clearly stated. MoHs must be collaborative partners in this programming; make a similar commitment to quality education (standardization of curricula and program accreditation) and draw up budget plans and strategies to assume the costs of midwifery PSE.
6. **USAID should support pre-service and in-service training in BEmONC and similar evidence-based practices and life-saving skills for midwives and their health service delivery partners** (e.g., doctors, clinical officers). **Country authorities should be participants in planning for such activities,** disseminating reproductive health guidelines that clearly indicate roles, responsibilities, and standards of practice for all cadres trained in BEmONC.
7. **USAID should expand the content of its trainings beyond BEmONC to include the MCH content areas most relevant to the health needs (disease burden) of each country,** using the same approaches to competency-based teaching and learning that ACCESS has already well-modeled. PMTCT and PAC are examples of such content. Programming should be planned in collaboration with partner agencies whose expertise extends across the continuum of care (e.g., child health, adolescent reproductive health).

8. **USAID should require its cooperating partners to incorporate specific plans for monitoring and evaluating the longer-term outcomes and impact of its PSE and in-service programming.** These plans should address both the degree to which learners sustain or continue to improve their professional performance, and the effect that improved performance may have on health outcomes.
9. **USAID should support** (independently or in partnership with other donor and professional organizations, such as the International Confederation of Midwives) programs to strengthen **midwifery professional associations**, to enhance the capacity of midwifery leaders and to promote the professional development of midwives as a preferred cadre of SBAs with a career pathway to higher academic and policy-making levels.



## APPENDIX A. SCOPE OF WORK

Global Health Technical Assistance Project  
GH-Tech  
Contact No. GHS1-00-05-00005-00

Draft dated 9-29-09

Scope of Work

### Assessment of Pre-Service Training activities of the ACCESS Project

#### I. IDENTIFICATION OF TASK

The Maternal and Child Health Division (MCH) of the Office of Health, Infectious Disease, and Nutrition (HIDN) of the Global Health Bureau (GH) requests the assistance of the GH-Tech project under task Order No.1 to conduct an assessment of the pre-service training activities of the Access to Clinical and Community Maternal, Neonatal and Women's Health Services (ACCESS) program during the past four years to learn about the impact of the program on pre-service midwifery training in selected African countries and to provide recommendations to USAID for future programming in this area.

USAID expects the evaluation to be conducted during October-December 2009.

#### II. BACKGROUND

There are many challenges within developing health care systems, including the lack of skilled health staff at rural facilities, as well as lack of competency-based pre-service and continuing education programs for health workers. One area where this is especially apparent is in the provision of services to women during childbirth. A high percentage of maternal deaths could be prevented by providing pregnant women with access to caregivers skilled in proven, effective, and timely interventions.

Though effective interventions to reduce maternal mortality are known, effective delivery of care remains an enormous challenge in developing countries. At least 529,000 women die every year as a result of pregnancy and childbirth, nearly all in developing countries.<sup>2</sup> There are many challenges within developing health care systems, including the lack of skilled health staff or low retention of existing skilled health staff at rural facilities, as well as lack of competency-based pre-service and continuing education programs for health workers.<sup>3</sup> Many primary health care centers and district-level facilities in developing countries struggle to meet the existing demand for care with limited trained staff.

One necessary component for improved maternal and newborn outcomes is ensuring that health workers have updated skills and information. To improve maternal and neonatal survival, health care workers must be equipped with the necessary competencies to provide emergency obstetric and newborn care (EmONC).<sup>4</sup> WHO defines the package of basic emergency obstetric and neonatal care (BEmONC) as consisting of seven essential components: administering antibiotics, administering oxytocin drugs, administering anticonvulsants for pre-eclampsia and eclampsia, performing removal of retained products (e.g., manual vacuum aspiration), performing assisted vaginal delivery, and performing basic neonatal resuscitation. These services should be available at any health post.<sup>5</sup> Comprehensive emergency obstetric care (CEmONC) includes the BEmONC

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<sup>2</sup> ACCESS Project (2005). *The Household-to-Hospital Continuum of Maternal and Newborn Care*, p. 2.

<sup>3</sup> ACCESS Project (2005). *The Household-to-Hospital Continuum of Maternal and Newborn Care*, p..

<sup>4</sup> USAID. *Emergency Obstetric and Newborn Care*. USAID's Global Health Online Learning Center: [www.globalhealthlearning.org](http://www.globalhealthlearning.org); accessed July 2009.

<sup>5</sup> World Health Organization. *Monitoring Emergency Obstetric Care: A Handbook*. France: 2009, p. 7.

package, as well as the ability to provide surgery (Cesarean section) and blood transfusions<sup>6</sup> and advanced neonatal resuscitation; typically these services are only available at referral facilities.

To be able to perform EmONC procedures, competency based in-service and/or pre-service training is necessary to provide updated evidence-based knowledge and skills, including training in conducting normal childbirth in a culturally appropriate manner, as well as basic and comprehensive EmONC (BEmONC and CEmONC). Training should also include components such as post-abortion care and postpartum family planning. Currently, however, few in-service or pre-service curricula/programs include all the skills for performing the signal functions of EmONC.<sup>7</sup>

Another obstacle in delivering services is policies that limit the health workers who are capable, with training, of administering certain life-saving procedures. Researchers have demonstrated that health workers such as nurse-midwives and general medical practitioners can be effectively trained and equipped to perform emergency obstetric procedures, previously reserved exclusively for obstetricians.<sup>8</sup> Because obstetricians are rare in many developing countries, especially in poor and underserved areas, limiting service provision to obstetricians exclusively has deleterious impacts on the survival of women and newborns. EmONC interventions must be performed consistently at each level of the continuum to ensure continuity of care for women and newborns. Thus, policies that enable health cadres to perform tasks that they can perform effectively are essential.

### **Background on the ACCESS program and pre-service activities:**

The ACCESS program mandate seeks to increase use and coverage of maternal, neonatal, and women's health and nutrition interventions, ultimately to improve the health and survival of mothers and their newborns. The program's strategy is to improve health delivery by strengthening the facility, connecting the household to the facility, and mobilizing family and community members to make the links necessary to care for mothers and newborns.<sup>9</sup> ACCESS is a five-year Leader with Associate Award, implemented by JHPIEGO in collaboration with Save the Children, Constella Futures, the Academy for Educational Development, American College of Nurse-Midwives, and IMA World Health. The program began in 2004 and will end in March 2010.

As part of the effort to increase access to quality EmONC services, USAID has invested in training of pre-service midwifery educators in BEmONC through the collaboration of the MCH Division of the GH bureau and the Africa Bureau (AFR/SD). Both bureaus provided funds to the Jhpiego organization under the ACCESS program to provide technical assistance to midwifery schools, activities started at a regional level. ACCESS collaborated with WHO/AFRO in conducting one regional pre-service midwifery training course to upgrade tutors skills in BEmONC in four African countries: Malawi, Tanzania, Ghana and Ethiopia.

ACCESS has developed training tools to strengthen pre-service midwifery education. These interventions are designed to strengthen midwifery pre-service and in-service training curricula and the knowledge and clinical training skills of midwifery tutors and preceptors who teach future generations of nurse-midwives. A core component of the training is to build a sustainable strategy for meeting the need for greater numbers of skilled birth attendants, especially those with competencies in BEmONC.<sup>10</sup> Prior to beginning training, ACCESS conducted country-level assessments and stakeholder meetings in the four countries. Trainers and preceptors at selected pre-service institutions participated in technical updates and clinical skills standardizations (TU/CSS) in BEmONC to improve their knowledge and practices and Effective Teaching Skills courses to improve their clinical training skills. These trained tutors and clinical preceptors,

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<sup>6</sup> Ibid.

<sup>7</sup> USAID. *Emergency Obstetric and Newborn Care*. USAID's Global Health Online Learning Center: [www.globalhealthlearning.org](http://www.globalhealthlearning.org); accessed July 2009.

<sup>8</sup> ACCESS Project (2005). *The Household-to-Hospital Continuum of Maternal and Newborn Care*.

<sup>9</sup> Information taken from the ACCESS Project website: <http://www.accesstohealth.org/>. Information accessed July 2009.

<sup>10</sup> ACCESS (2007). "ACCESS Year 3 Annual Report," p39.

equipped with updated BEmONC knowledge and skills as well as enhanced teaching capacity, conduct training at a local level as well as act as mentors for other trainers.

ACCESS also strengthened at least one clinical training site in the four countries through building clinical training skills labs and supported revisions to midwifery curricula in each country to include BEmONC best practices within the national curriculums. All preceptors and tutors trained in BEmONC and post-abortion care are followed up through supportive supervision at both the nursing college and clinical training site. In Tanzania and Malawi field support funds were added to expand and strengthen midwifery education. In Malawi the Mission requested MCHIP to add family planning to the midwifery BEmONC training.

### **Other global projects supported by AFR/SD that address pre-service training:**

USAID/AFR/SD funded the Africa's Health in 2010 (Africa 2010) project to provide technical assistance for BEmONC training at a regional level in Africa. The project focuses on policy initiatives including promotion of evidence-based standards and guidelines; development of policies, norms and protocols at the national level; and legislative change to strengthen the enabling environment for safe motherhood. Africa 2010 is a five-year project that began in 2005 and is implemented by AED with core funds from USAID's Africa Bureau.<sup>11</sup> AFR/SD is planning for a separate evaluation of the Africa 2010 project during the same time frame as this assessment.

### **A forward-looking objective and rationale for the assessment:**

Because the ACCESS program is ending by March 2010, the MCH division designed a follow-on Maternal and Child Health Integrated Program (MCHIP). MCHIP was competitively awarded in 2008 to Jhpiego as the prime partner. MCHIP will continue supporting USAID efforts to improve maternal and newborn services and provide global leadership in this field in addition to several other technical areas, such as child health, immunization, nutrition, PMTCT, and malaria activities. Because of the human resource issues covered above, MCHIP will be expected to continue working in pre-service training and might add other technical areas, such as family planning (already started in Malawi), child health, and PMTCT. Before USAID invests additional funds in this critical area, it was decided to have an assessment of ACCESS pre-service training activities to learn about ACCESS achievements, lessons learned, and recommendations for future programming in this area.

## **III. OBJECTIVE OF THE ASSESSMENT**

USAID is interested in knowing how the investments in pre-service training for midwives through the ACCESS program have influenced midwifery education in the three African focus countries (Malawi, Ghana and Ethiopia) and what are the other programming needs that USAID should address to advance midwifery training in developing countries. ACCESS pre-service activities implemented in Tanzania were excluded from this assessment because the Mission plans to conduct an evaluation of all ACCESS activities in Tanzania, including the pre-service activity.

The objective of the assessment is to

1. Examine the impact of pre-service midwifery training at three levels:
  - a. The impact of regional and country-level training on the tutors, clinical preceptors, and related training institutions
  - b. The impact of the investment on the institution-affiliated training hospitals and other relevant clinical training sites and country-level midwifery training programs
  - c. The impact of pre-service midwifery training on midwives' skills and performance after deployment.

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<sup>11</sup> Information taken from the Africa's Health in 2010 website: <http://africahealth2010.aed.org>. Information accessed July 2009.

2. Provide recommendations to USAID related to future investment in this area and
  - a. Advise whether the approach used by ACCESS achieved the desired objective.
  - b. Summarize key lessons learned to guide future programming in this area.
  - c. Identify other training gaps that USAID should address, and whether there are other cadres providing key maternal and newborn services that should be included.
  - d. Identify other strategies to address human resources crises, such as recruitment, retention, and career development issues.

#### **IV. STATEMENT OF WORK**

The following are illustrative questions to be used by the review team:

1. **What has been the impact of regional and country-level training on midwifery tutors, clinical preceptors, and related training institutions?** (Regional work has to be confirmed by ACCESS)

##### **Regional training**

- For tutors and clinical preceptors trained at the regional level, how much of the training diffuses into the country system? Do they go on to train others? Are these activities adopted?
- Do tutors and clinical preceptors involved in the training feel that they have the necessary skills to teach BEmONC? Do they have the necessary facilities?
- How does regional training translate from participants to institutions?
- How are regional training participants followed?

##### **Country-level training**

- For tutors and clinical preceptors trained at a country level, how much of the training are they able to adopt in classroom and clinical settings?
- Do tutors and clinical preceptors involved in ACCESS training feel that they have the necessary skills to teach BEmONC? Do they have the necessary facilities?
- Examine the feasibility of comparing tutors trained by ACCESS and others who were not trained.
- What are the challenges in implementing the skills learned during training?
- Are the trained clinical preceptors applying the training received in their own service delivery? Are they real role models?

##### **Comparing regional and country-level training**

- What are the comparative advantages and disadvantages of regional and country-specific training? Comparing the AF 2010 and ACCESS models if feasible.
  - After training, how are participants tracked and followed in both models?
2. **What has been the impact of the investment on the institution-affiliated training hospitals, other relevant clinical training sites, and country-level midwifery training programs?**
    - How does the hospital function as a training center (quality, evaluation of students and facility, documentation, etc.)?
    - Within the hospital and training institution, what is the relationship between classroom faculty and clinical preceptors?

- How do the selected midwifery schools and affiliated hospitals measure competence? Has EmONC content been included in exams and clinic evaluations? How are students given exposure to/ experience in emergency care and how is this assessed? Has postabortion care and/or postpartum family planning been incorporated into the pre-service curriculum (applies to Malawi)?
  - Were pre-service midwifery training centers the right training institutes in selected countries? Should other pre-service training institutes catering for different cadres have been included?
  - Have the selected institutions (schools and affiliated hospitals) adopted new practices or changed clinical setting practice? Have changes occurred country-wide, apart from the selected midwifery training schools?
  - Has the BEmONC training been incorporated in the country-wide pre-service maternal and newborn care curriculum?
  - How much of the pre-service midwifery curriculum has been adopted by the MOH/MOE or supported by other donors?
  - What has been the involvement of the midwifery and nursing council with ACCESS pre-service activities? Has the council/association been engaged?
  - Is information kept regarding the deployment and retention of midwives?
  - Has information about the new curriculum, training, and skills been disseminated to non-training institutions where students will be deployed after graduation?
- 3. What has been the impact of the pre-service midwifery training on the midwives' skills and performance after deployment (those who are trained at a country level)?** *Names of midwives trained has to be provided by ACCESS or midwifery schools.*
- Are midwives using the BEmONC skills that they were trained in? If so, what are the successes and challenges? What are some of the barriers to practicing BEmONC?
  - What is the retention rate of trained midwives and the deployment rate in health facilities or relevant teaching or supervisory positions for midwives benefiting from ACCESS training?
  - How much skill practice did trainees get, such as number of supervised deliveries? How confident do they feel in all aspects of BEmONC? If midwives have had emergency cases, how were they handled?
  - How do midwives integrate postpartum family planning (PPFP)? Is this taught in training facilities? Did the training include skills for IUD and implants, if applicable to the visited country?
  - Does the curriculum correspond to the job description (are midwives allowed and expected to use these skills)?
- 4. Provide recommendations to USAID related to future investment in this area and specifically address:**
- Was the investment worth doing? How much was the cost (GH and AFR/SD)? How many trainers, tutors, and clinical preceptors were trained and what number of institutions and facilities upgraded per country through ACCESS work?
  - How much of other resources were leveraged by USAID Missions, the MOH, or other donors?
  - What are the key lessons learned?
  - Is there any other approach recommended to improve pre-service education and address the human resource crises in maternal health?

- Identify other training gaps that USAID should address and whether there are other cadres providing key maternal and newborn services that should be included.
- Identify other strategies to address human resources crises, such as recruitment, retention, and career development issues.
- Should USAID invest in pre-service training beyond BEmONC and FP to other technical disciplines, such as child health, malaria and PMTCT?

### **Audience:**

The result of the assessment will be used primarily by GH/MCH, USAID/AFR/SD, other regional bureaus, Missions interested in similar activities, and partners implementing pre-service training programs like ACCESS, MCHIP, and Africa 2010. Ministries of Health or other government officials in countries that sponsor pre-service training may also apply the findings to their country programs.

### **Suggested Methodology**

The following steps are proposed:

1. Engage in a 2-3 day **Team Planning Meeting (TPM)** in Washington, DC, to discuss the evaluation scope of work, agree on team member roles and responsibilities, clarify the evaluation expectations of USAID, draft a work plan and report outline, and decide on the methodology to be used to conduct the reviews, the analytical framework, and evaluation instruments. The evaluation team will develop a set of semi structured interview questionnaires for stakeholders, partners, MOH, staff from training institutions, and graduated midwives. Sample questionnaires are attached. USAID will discuss with ACCESS the feasibility of collecting some data prior to the actual field visits.
2. Take a **consultative approach** to the review: meet with the USAID GH and ACCESS team during the planning and review process. The ACCESS team will play a key role in facilitating this assessment in the US and at the country level. As much as time allows, communicate with the ACCESS team on a regular basis throughout the evaluation. Provide updates to USAID contact persons at reasonable intervals.
3. **Review the most relevant project documents** and products, to be provided by USAID, ACCESS/Jhpiego, and Africa 2010/AED. Review existing literature related to midwifery training and human resource issues in the Africa context.
4. **Perform interviews** in the US with USAID/GH staff; AFR/SD; USAID partners, such as ACCESS and Africa 2010,; and regional USAID/West Africa and USAID/East Africa offices (by phone). A complete list of recommended names of informants will be provided later by USAID/W and ACCESS.
5. **Field visits:** The team leader and one consultants will visit the three target countries (Malawi, Ghana, and Ethiopia). In each country a USAID staff member from USAID/W, the Mission, or the Africa region offices may join to contribute to the observations and findings. With input from ACCESS, the Mission, or MOH in the countries visited, the visiting teams will visit the main midwifery schools and health facilities that received ACCESS support. During the field visits teams will interview key informants, MOH staff, relevant donors, staff from the midwifery schools, and nursing councils, and will conduct focus group discussions as appropriate.
6. **Meeting in DC after the field visits:** To share and analyze observations from field visits and synthesize the draft report. USAID is expecting that the final report will include general lessons learned and recommendations, even though observations from each country might be different.

### **Deliverables and Products**

**Work Plan:** During the TPM, the team will prepare a detailed work plan that will include the methodologies to be used in the assessment. The work plan will be submitted to USAID/W for approval no later than the sixth day of work.

Methodology Plan: A written methodology plan (evaluation design/operational work plan) will be prepared during the TPM and discussed with USAID prior to implementation.

Assessment Report Outline: The team will submit a rough outline of the draft report to USAID/W for discussions and agreement on main sections expected in the final assessment report.

Debriefing with USAID: The team will present the major findings of the assessment to USAID/W using a PowerPoint presentation after submission of the draft report. The debrief will include a discussion of achievements and issues as well as any recommendations for future programming. The team will consider USAID comments and revise the draft report as appropriate.

Debriefing with Partners: The team will present the major findings of the evaluation to USAID partners with USAID participation using a PowerPoint presentation. The team will consider partner comments and revise the draft report as appropriate.

Draft Assessment Report: A draft report of the findings and recommendations should be submitted to USAID/W. The written report should clearly describe findings, conclusions, and recommendations. USAID will provide comments on the draft report within two weeks of submission.

Final Report: The team will submit a final report that incorporates team responses to USAID/W comments and suggestions within 10 days of receiving USAID/W comments (or other agreement reached during the TPM due to public holidays). This report should not exceed 30 pages in length (not including appendices, lists of contacts, etc.). The format (in Times New Roman font 12 point) will include an executive summary (no longer than 3 pages), table of contents, methodology, findings, and recommendations for future investment in pre-service training health. The report will be submitted in English, electronically. It will be disseminated within USAID.

The final report will be edited and formatted by GH Tech and provided to USAID/W approximately one month after USAID/W has reviewed the content and approved the final revised version of the report. The final report is to be submitted to the GH/HIDN in hard copy (20 copies) and in electronic form. This review report will be a public document.

### **Timeline and Schedule**

The evaluation will begin on or about October 15 and be completed no later than December 30, 2009. USAID anticipates that the period of performance of this assessment will be approximately one month; this will include preparation days, field visits, analysis, and report writing. Specific start and end dates and due dates for deliverables will be determined in collaboration with USAID during the initial TPM.

It is preferred that the field visits be conducted during the first 15 days of November.

<b>TABLE 1A: AN ILLUSTRATIVE TABLE OF LEVEL OF EFFORT (LOE)</b>			
<b>Task</b>	<b>Team Leader</b>	<b>Consultant A</b>	<b>Total Person Days</b>
Planning with USAID/W	2	2	4
Reading background documents	2	2	4
Developing data collection instruments	1	1	2
Scheduling and conducting interviews (virtually)	4	3	7
Travel to and from countries	4	2	8
Interviews, site visits, etc., (overseas)-approx 7 days in	21	21	42

**TABLE 1A: AN ILLUSTRATIVE TABLE OF LEVEL OF EFFORT (LOE)**

Task	Team Leader	Consultant A	Total Person Days
each country (Malawi, Ethiopia, and Ghana)			
Data analysis and writing draft report in Ghana	4	4	8
Debriefing -2 meetings (half-day each)	1	1	2
Revise report	4	2	6
<b>Total</b>	<b>43</b>	<b>38</b>	<b>81</b>

**Phase 1: Preparation and Information Gathering: 8–9 days**

- Participate in a team meeting with USAID/W staff.
- Finalize work plan, timeline, report outline, and evaluation instruments.
- Conduct interviews with USAID/W, ACCESS, and Africa 2010 staff and others.
- Review documents.

**Phase 2: Field Visits: 10 days (including travel)**

- Visit midwifery training colleges.
- Conduct key informant interviews with USAID Mission and ACCESS country staff.
- Conduct focus groups and interviews with tutors and clinical preceptors and with graduates of midwifery schools if possible.
- Visit the improved facilities.
- Draft sections of the report.

**Phase 3: Completion of Work and Debrief: 7–11 days**

- Analyze and compare country observations.
- Draft report and prepare debriefing presentation.
- Present to USAID and other stakeholders.
- Finalize report.

**Team Composition**

The team for this evaluation will consist of two persons. The lead evaluator („team leader”) will have highly developed skills relating to conducting evaluations of USAID-funded activities, and must have demonstrated strong skills in program planning, design, and midwifery teaching skills. At least one team member will have practical, direct experience managing midwifery education, preferably including BEmONC training.

Collectively, the evaluation team members should have the following skills and experience:

- Advanced degrees in midwifery, obstetrics, social science, or other relevant disciplines (all team members);
- Strong background in midwifery skills (one should be a trained midwife, ideally with experience in training other midwives);



- Previous experience evaluating USAID-funded programs;
- Minimum of 15 years experience in public health, with significant concentration in maternal health (all team members);
- Program planning, evaluation, and design experience;
- Experience managing and/or working with USAID-funded projects in developing countries;
- Strong technical knowledge in maternal and neonatal health;
- Experience in capacity building of organizations in developing countries;
- Familiarity with the international donor environment;
- Excellent verbal communication and writing skills;
- Strong background in qualitative evaluation skills; and
- Ability to travel internationally to field sites.

The team leader will be responsible for the overall planning, design, and implementation of the evaluation and work coordination among team members. The team leader is responsible for report writing and the organization of the debriefing presentations.

### **Funding and Logistical Support**

The estimated amount for GH Tech contact No.GHS-1-00-05-00005 -00 is \_\_\_\_\_. See Annex 1 for breakout.

GH Tech will provide the following technical, administrative, and logistical support to complete this assignment. Specifically, GH Tech will carry out the necessary preparation activities for the evaluation including:

1. Identify appropriate consultants.
2. Organize a team-planning meeting with consultants and USAID.
3. Assist team in organizing meetings with partners and key informants.
4. Provide logistical support and office space in Washington, DC, for team meetings and review of documents.
5. Organize travel and field visits of the team.
6. Submit a final draft of the report electronically to USAID for comments and feedback.
7. Incorporate any necessary changes into the draft.
8. Summit final edited report electronically and 20 hard copies to USAID.
9. Organize two debriefings by the team, one with the USAID Maternal Health team to discuss the draft report and a larger one with all stakeholders and partners at USAID.

### **Relationships and Responsibilities**

In addition to the support from GH Tech listed above to complete the SOW, the evaluation team will receive technical direction from the ACCESS AOTR, Nahed Matta, [nmatta@usaid.gov](mailto:nmatta@usaid.gov), 202-712-4564. Nahed Matta will provide final approval of the deliverables.

Additional technical guidance will be provided by the USAID maternal health (MH) team of GH/HIDN: Mary Ellen Stanton, [mstanton@usaid.gov](mailto:mstanton@usaid.gov) 202-712-4208, and, Lily Kak, [lkak@usaid.gov](mailto:lkak@usaid.gov), 202-712-1784



## APPENDIX B. DOCUMENTS REVIEWED

### GENERAL

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## **GHANA**

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## **MALAWI**

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## **APPENDIX C. PERSONS CONTACTED**

### **UNITED STATES**

#### **Academy for Educational Development**

Doyin Oluwole, Director, Africa's Health in 2010

#### **American College of Nurse-Midwives Department of Global Outreach**

Diana Beck, Senior Technical Advisor

Annie Clark, Senior Technical Advisor

#### **Jhpiego/ACCESS**

Koki Agarwal, Director, MCHIP

Patricia Gomez, Clinical Specialist/ACCESS

David Burrows, Program Officer (Zambia)

Natalie Hendler, Program Officer (Tanzania)

Jeffrey Smith, Regional Technical Director/Asia (Thailand)

#### **U.S. Agency for International Development**

USAID Office of Health, Infectious Diseases and Nutrition, Bureau for Global Health

Laura Campbell, PHN Officer

Dr. Nahed Matta, Senior Maternal and Newborn Health Advisor, ACCESS/MCHIP CTO

Mary Ellen Stanton, RH Advisor

USAID/Bureau for Africa/Sustainable Development

Roy Miller, Senior Health Advisor for Strategic Information

Karen Fogg, Health Program Advisor, Maternal and Newborn Health

#### **White Ribbon Alliance**

Frances Ganges, CNM

#### **World Health Organization**

Margaret Loma Phiri, HRS Focal Point for Inter Country Support Team

WA and Regional Focal Point for Nursing/Midwifery, Division of Health Systems and Services Development, WHO Regional Office for Africa, Ouagadougou, Burkina Faso

### **ETHIOPIA**

#### **Ethiopia Midwives Association**

Aster Berhe, President

#### **Hamlin College of Midwifery**

Addis Ababa Fistula Hospital

Jacqueline Bernhard, Dean

Annette Bennett, Vice Dean

## **Jhpiego/Ethiopia**

Yassir Abduljewad, Deputy Country Director  
Sheena M. Currie, Sr. Midwifery Advisor  
Hanna Gibson, Country Director  
Alemnesh Tekleberhan, Midwifery Advisor  
Yodit Woldegebriel, Program Assistant

## **Individual Trainers, Tutors, and Midwives**

Lucia Araya, Master Trainer  
Brekete Braha, Clinical Trainer  
Bizunesh Gebre, previously Head of Labor Ward  
Mekdes Melese, Head of Labor Ward

## **Midwifery Students**

Addis Ababa University  
Tseganesh Bekele  
Lello Amdissa  
Demissew Mitiku

## **Ministry of Education**

Ato Berhanu Alebachew Deputy Head 10 Universities Project

## **Ministry of Health**

Mieselech Assegid, Assistant Director, Agrarian Health Promotion and Disease Prevention Directorate  
Dmasu Berhane Keseteberhan, Director General  
Berhanu Feyisa Tilla, Director, Human Resource Development Directorate  
Keseteberhan Admasu Berhane, Director General, Health Promotion and Disease Prevention General Directorate

## **UNFPA**

Muna Adbullah, Program Officer, Reproductive Health

## **USAID/Ethiopia**

Premila Bartlett, Senior RH and FP Advisor  
Martha Bedelu, Administration Officer  
Kassahun Deneke, Strategic Information Officer  
Mesarak Nadew, Public Health Specialist, AIDS, Population & Nutrition  
Jeanne Ridout, Health Team Leader

## **UNICEF/Ethiopia**

Luwei Pearson, Chief, Health Section

## **WHO/Ethiopia**

Nebreed Feseha, Representative: Making Pregnancy Safer  
Fatoumata Nafo-Traore, Head of Mission and Representative

## **GHANA**

### **Jhpiego/Ghana**

Joyce Ablordeppey, Maternal and Newborn Health Specialist

### **John Snow Inc. Focus Region Health Project**

Edward Bonku, Management and Health Systems Advisor

### **Koforidua Regional Hospital**

Rosina Santewaa, Trainee Preceptor

Faustina Okyere, Trainee Preceptor

Lucy Sekyama, Trainee Preceptor

### **Koforidua Nursing and Midwifery Trainee College**

Patricia Adika, Trainee Tutor; Deputy Principal

Evelyn Ayerko-Appiah, Trainee Tutor

Jessie Appiagyei, Trainee Tutor

### **Korle Bu Teaching Hospital, Accra**

Dorothy Kutubebi, Trainee Preceptor

Veronica Amedo, Trainee Preceptor

### **Ministry of Health, Department of Human Resource for Health Development**

Ebenezer Appiah-Denkyira

### **Nurses and Midwives Council**

Cecilia Kalitsi, Deputy Registrar, Indexing and Registration

Victoria Quaye, Trainer

### **Tema Regional Training Center**

Sylvia Degamus, Trainer, ACCESS Project

### **Tema Polyclinic**

William Darico, Senior Medical Officer

### **USAID/Ghana**

Laurel Fain, Health Office Chief

Juliana Pwamang, MCH Program Specialist

Susan Wright, Deputy Office Chief/FP/MNCH Senior Advisor

### **World Health Organization/Ghana**

Daniel Kertesz, WHO Representative to Ghana

Charles Fleischer-Djoleto, Family Health & Population Officer

## **MALAWI**

### **African Development Bank**

Benedict Kunene, Social Development Specialist

### **Bwaila Hospital**

Edna Kauta, Nursing Officer/Preceptor

Eunice Kiyo, Nursing Officer/Preceptor

### **Global AIDS Interfaith Alliance (GAIA)**

Getrude Chipungu, Programme Manager

### **GTZ (German Technical Cooperation)**

Juliana Ilse, Human Resource Advisor

### **Malawi College of Health Sciences**

Bertha Chakhame, Lecturer, Head of Department

Mary Conyani, Assistant Tutor

Nanzen Kaphagawani, Campus Director

### **MCHIP/Malawi (Jhpiego/Malawi)**

Jane Banda, Program Officer

Tambudzai Rashidi, Chief of Party

Aleisha Monique Rozario, M&E Specialist

### **Medical Council of Malawi**

Richard Ndovie, Inspection Officer

Abel Kawonga, Registrar

### **Midwives Association of Malawi**

Address Malata, President

### **Ministry of Health Reproductive Health Unit**

Felicitas Kanthiti, Chief Nursing Officer, Nursing Education

Fannie Kachale, Deputy Director, Clinical Services – Reproductive Health

### **Nurses and Midwives Council of Malawi**

Mrs. Kamphinda

### **St. Johns Mission Hospital**

Marla Bvunbwe, Nursing Officer

### **St. Joseph College of Nursing**

Rose Wasili, Principal



**UNFPA**

Dorothy G. Nyasulu, Assistant Representative

**University of Malawi**

A. Malata, Principal

**USAID/Malawi**

Melanie Luick-Martins, Population, Health and Nutrition Office

Lilly Banda-Maliro, Deputy Team Leader (HPN)

**Zomba General Hospital**

Preceptors (8)

**TANZANIA****ECSACON**

Sheillah Matinhure Senior Program Officer



## APPENDIX D. ASSESSMENT TEAM SCHEDULE

DETAILED ASSESSMENT SCHEDULE				
Day (6 day week)	Activities/Sites	Time	Individuals	Participants
<b>SAN DIEGO, CA</b>				
<b>Friday 1/1/10 (1)</b>	• Review of documents	1000 - 1800		Judith Fullerton (JF)
<b>Saturday 1//2/10 (2)</b>	• Review of documents	0900 – 1700		JF
<b>WASHINGTON, DC</b>				
<b>Sunday 1/3/10 (1)</b>	• Travel to DC			JF
<b>Monday 1/4/10 (2)</b>	• Entry briefing	0900 – 1200	Mary Ellen Stanton	Laura Campbell (LC) JF
	• Interview • USAID/Global Bureau	1400 – 1500		
<b>Tuesday 1/5/10 (3)</b>	• Interview USAID/Africa Bureau	0930 – 1030	Roy Miller Karen Fogg	JF
	• Teleconference WHO Regional Office for Africa	1100 – 1200	Margaret Phiri	JF
	• Teleconference White Ribbon Alliance	1200 – 1300	Frances Ganges	JF
	• Teleconference AED (Africa’s Health in 2010)	1500 – 1600	Doyin Oluwole	JF, LC

<b>DETAILED ASSESSMENT SCHEDULE</b>				
<b>Day (6 day week)</b>	<b>Activities/Sites</b>	<b>Time</b>	<b>Individuals</b>	<b>Participants</b>
<b>Wednesday 1/6/10 (4)</b>	• <b>Teleconference MCHIP</b>	0830 – 0900	Koki Agarwal	JF
	• <b>Teleconference ACCESS</b>	0900 – 0930	David Burrows	JF
	• <b>Teleconference ACCESS</b>	0930 – 1000	ACCESS Natalie Hendler	JF
	• <b>Teleconference American College of Nurse Midwives</b>	1200 – 1300	Diana Beck	JF
	• <b>Travel to Accra</b>			
<b>Thursday 1/7/10</b>	• <b>Travel (continued)</b>			
<b>GHANA</b>				
<b>Friday 1/8/10 (5)</b>	• <b>Team planning meeting</b>	0830 – 1800		JF Sebalda Leshabari ( SL)
<b>Saturday 1/9/10 (6)</b>	• <b>Team planning meeting</b> • <b>Review of qualitative data (Ghana)</b>	0830 – 1800		JF, SL
<b>Sunday 1/10/10</b>	• <b>OFF</b>			
<b>Monday 1/11/10 (1)</b>	• <b>In-brief and interview USAID/Ghana</b>	1000 – 1100	Juliana Pwamang Susan Wright	JF SL Joyce Ablordeppey (JA)
	• <b>Interview ACCESS</b>	1100 – 1230	Joyce Ablordeppey	JF, SL
	• <b>Interview and field visit</b>	1300 – 1500	Dr. Sylvia Deganus	JF, SL, JA

### DETAILED ASSESSMENT SCHEDULE

Day (6 day week)	Activities/Sites	Time	Individuals	Participants
	<b>Tema General Hospital Training Center</b>			
	<ul style="list-style-type: none"> <li>• <b>Site visit and survey Tema Polyclinic</b></li> </ul>	1500 – 1630	Dr. William Darico Midwives (ACCESS non-participants)	JF, SL, JA
<b>Tuesday 1/12/10 (2)</b>	<ul style="list-style-type: none"> <li>• <b>Interview Nurses and Midwives Council</b></li> </ul>	0900 – 1000	Cecelia Kalitsi Victoria Quaye	JF, SL, JA
	<ul style="list-style-type: none"> <li>• <b>Interview WHO/Ghana</b></li> </ul>	1100 – 1200	Dr. Daniel Kertesz Dr. Charles Fleischer-Djoleto	JF, SL, JA
	<ul style="list-style-type: none"> <li>• <b>Site visit and survey Kasoa Health Center (Ghana Health Service)</b></li> </ul>	1500 – 1600	Midwives (ACCESS non-participants)	JF, SL, JA
<b>Wednesday 1/13/10 (3)</b>	<ul style="list-style-type: none"> <li>• <b>Interview MoH Dept, Human Resource for Health Development</b></li> </ul>	0900 – 1000	Dr. Appiah Denkyira	JF, SL, JA
	<ul style="list-style-type: none"> <li>• <b>Interview Korle Bu Teaching Hospital</b></li> </ul>	1400 – 1500	Dorothy Kutebebi Veronica Amedo	JF, SL, JA
	<ul style="list-style-type: none"> <li>• <b>Teleconference</b></li> </ul>	1600 – 1630	Patricia Gomez	JF, SL
<b>Thursday 1/14/10 (4)</b>	<ul style="list-style-type: none"> <li>• <b>Interview and site visit Koforidua Regional Hospital</b></li> </ul>	1000 – 1200	Rosina Santewaa Faustina Okyere Lucy Sekyama	JF, SL, JA
	<ul style="list-style-type: none"> <li>• <b>Interview Koforidua Nursing and Midwifery Training College</b></li> </ul>	1230 – 1400	Patricia Adika Evelyn Ayerko-Appiah Jessie Appiagyei	JF, SL, JA
<b>Friday 1/15/10 (5)</b>	<ul style="list-style-type: none"> <li>• <b>USAID/Ghana Debrief</b></li> </ul>	1000 - 1100	Laurel Fain	JF, SL, JA
	<ul style="list-style-type: none"> <li>• <b>Interview JSI – Focus Region Health Project</b></li> </ul>	1300 – 1400	Dr. Edward Bonku	JF, SL JA

<b>DETAILED ASSESSMENT SCHEDULE</b>				
<b>Day (6 day week)</b>	<b>Activities/Sites</b>	<b>Time</b>	<b>Individuals</b>	<b>Participants</b>
<b>Saturday 1/16/10 (6)</b>	<ul style="list-style-type: none"> <li>Travel to Malawi</li> </ul>			
<b>MALAWI</b>				
<b>Sunday 1/17/10</b>	<ul style="list-style-type: none"> <li>OFF</li> </ul>			
<b>Monday 1/18/10 (1)</b>	<ul style="list-style-type: none"> <li>Interview Chief Nursing Officer MOH</li> </ul>	0900 – 1000	Felicitas Kanthiti	JF, SL, LC
	<ul style="list-style-type: none"> <li>Interview German Technical Assistance</li> </ul>	1130 – 1230	Juliana Isle	JF, SL, LC
	<ul style="list-style-type: none"> <li>Interview Nursing Officer Nurses and Midwives Council of Malawi</li> </ul>	1330 – 1440	Mrs. Kamphinda	JF, SL, LC
	<ul style="list-style-type: none"> <li>Group interview Principals of Malawi College of Health Sciences and St. Joseph College of Nursing</li> </ul>	1500 – 1600	Nanzen Kaphagawani Rose Wasili	JF, SL, LC
	<ul style="list-style-type: none"> <li>Interview Principal of Kamuzu College of Nursing</li> </ul>	1800 – 1900	Dr. Address Malata	JF, SL, LC
<b>Tuesday 1/19/10 (2)</b>	<ul style="list-style-type: none"> <li>Focus group Nursing Officers of St. Johns Mission and Bwaila Hospitals</li> </ul>	0900 – 1015	Marla Bvumbwe Edna Kauta Eunice Kiyo	JF, SL, LC
	<ul style="list-style-type: none"> <li>Interview WHO</li> </ul>	1100 – 1200	Harriet Chanza	JF, SL, LC
	<ul style="list-style-type: none"> <li>Interview African Development Bank (Social Development Specialist)</li> </ul>	1330 – 1430	Benedict Kunene	JF, SL, LC
	<ul style="list-style-type: none"> <li>Interview Global AIDS Interfaith Alliance</li> </ul>	1500 – 1600	Gertrude Chipungu	JF, SL, LC

### DETAILED ASSESSMENT SCHEDULE

Day (6 day week)	Activities/Sites	Time	Individuals	Participants
	<ul style="list-style-type: none"> <li>Interviews Medical Council of Malawi: Inspection Officer and Registrar</li> </ul>	1615 – 1700	Mr. Richard Ndovie Dr. Abel Kawonga	JF, SL, LC
<b>Wednesday</b> 1/20/10 (3)	<ul style="list-style-type: none"> <li>In-brief USAID Population &amp; Health Officer Deputy Team Leader (HPN)</li> </ul>	0700 – 0800	Melanie Luick-Martins Lilly Banda-Maliro	JF, SL, LC
	<ul style="list-style-type: none"> <li>Group interviews ACCESS TEAM: M&amp;E Specialist; Program Officer for Pre- and In-service Education; Chief of Party</li> </ul>	0930 – 1030	Tambudzai Rashidi Jane Banda Aleisha Monique Rozario	JF, SL, LC
	<ul style="list-style-type: none"> <li>Interview UNFPA</li> </ul>	1200 – 1245	Dorothy Nyasulu	JF, SL, LC
<b>Thursday</b> 1/21/10 (4)	<ul style="list-style-type: none"> <li>Focus groups: Tutors, preceptors, students Malawi College of Health Sciences, Zomba</li> </ul>	0830 – 0930	2 tutors 8 preceptors 3 students	JF, SL, LC
	<ul style="list-style-type: none"> <li>Clinical site visit: Simulation lab Malawi College of Health Sciences, Zomba</li> </ul>	0930 – 0945		JF, SL, LC
	<ul style="list-style-type: none"> <li>Clinical site visit: Zomba Central Hospital</li> </ul>	1000 – 1030		JF, SL, LC
	<ul style="list-style-type: none"> <li>Focus groups: Tutors, preceptors, students St Joseph College, Blantyre</li> </ul>	1300 – 1430	4 tutors 3 preceptors 3 students	JF, SL, LC
<b>Friday</b> 1/22/10 (5)	<ul style="list-style-type: none"> <li>Travel to Lilongwe</li> </ul>	0500 – 1030		JF, SL, LC
	<ul style="list-style-type: none"> <li>Interview MoH, Reproductive Health Unit, Deputy Director</li> </ul>	1130 – 1230	Fannie Kachale	JF, SL, LC
<b>Saturday</b> 1/23/10 (6)	<ul style="list-style-type: none"> <li>Review of qualitative data (Malawi)</li> </ul>	0630 – 1130		JF, SL
	<ul style="list-style-type: none"> <li>Travel to Ethiopia</li> </ul>			

<b>DETAILED ASSESSMENT SCHEDULE</b>				
<b>Day (6 day week)</b>	<b>Activities/Sites</b>	<b>Time</b>	<b>Individuals</b>	<b>Participants</b>
<b>ETHIOPIA</b>				
<b>Sunday 1/24/10</b>	• <b>OFF</b>			
<b>Monday 1/25/10 (1)</b>	• <b>Interview Jhpiego/ACCESS staff</b>	0900 – 1200	Hanna Gibson Sheena Currie	JF, SL, NM
	• <b>Interview Ministry of Education, Deputy Head 10 Universities Project</b>	1345 – 1445	Ato Berhanu Alebachew	JF, SL, NM, Sheena Currie (SC)
	• <b>Interview ACCESS master trainer and clinical trainer</b>	15:15 – 16:30	Lucia Araya Brekete Abraha	JF, SL, NM
	• <b>Interview Dean and Vice-Dean, Hamlin College of Midwifery</b>	1700 – 1830	Jacqueline Bernhard Annette Bennett	JF, SL, NM
<b>Tuesday 1/26/10 (2)</b>	• <b>Interview Master Trainers Addis Ababa University School of Nursing</b>	0815 – 0930	Yemsrach Kalku Aster Berje	SL, NM
	• <b>Focus group: Students, AAU SON</b>	0815 – 0930	Tseganesh Bekele Lello Amdissa Demissew Mitiku	JF
	• <b>Interview and site visit Labor Ward, Yekatit 12 Hosptial</b>	0945 – 1045	Bizunesh Behaila Bizunesh Gebre	JF, SL, NM, SC
	• <b>Safe Mother Workshop Presentation: WHO situational analysis on midwifery education</b>	11:00 – 1300		JF, SL, NM, SC
	• <b>Interview WHO Making Pregnancy Safer representative</b>	1300 – 1330	Nebreed Feseha	JF, SL, NM
	• <b>Travel to Assela</b>	1430 – 1800		



### DETAILED ASSESSMENT SCHEDULE

Day (6 day week)	Activities/Sites	Time	Individuals	Participants
<b>Wednesday 1/27/10 (3)</b>	• <b>Interview: Tutors, Assela Health Science College</b>	0900 – 0930	Meseret Tsigie	JF, SL, NM, SC
	• <b>Interview Graduates, AHSC</b>	0930 – 1015	2 graduates	
	• <b>Focus group: Students, AHSC</b>	1015 - 11	8 students	
	• <b>Site visit Simulation lab and library, AHSC</b>	1100 – 1130		
	• <b>Interview Acting Director, Assela Hospital</b>	1200 – 1230	Dr. Herpo	JF, SL, NM, SC
	• <b>Site visit Assela Hospital Maternity Ward</b>	1230 - 1330		
<b>Thursday 1/28/10 (4)</b>	• <b>Interview MOH Director of HR Development</b>	0815 - 0845	Mr. Berhanu Feyisa	JF, SI, NM, SC
	• <b>Interview MOH, Asst Dir Agrarian Health Promotion and Disease Prevention</b>	0945 – 1015	Mieselech Assegid	JF, SL, NM
	• <b>Interview WHO, Chief of Mission</b>	1245 – 1-1345	Dr. Fatoumata Nafu-Trore	JF, SL, NM
<b>Friday 1/29/10 (5)</b>	• <b>Debriefing USAID</b>	0800 – 0900	Premila Bartlett Marha Bedelu Kassahum Deneke Misrak Nadew Jeanne Rideout	JF, SI, NM
	• <b>Interview UNFPA, Program Officer – Repro Health</b>	0930 – 1030	Dr. Muna Abdullah	JF, SL, NM
	• <b>Interview President, Ethiopia Midwives Assn</b>	1145 – 1215	Aster Berhe	JF, SL, NM
	• <b>Interview UNICEF, Chief Health Section</b>	1245 – 1345	Luwei Pearson	JF, SL, NM

### DETAILED ASSESSMENT SCHEDULE

Day (6 day week)	Activities/Sites	Time	Individuals	Participants
	<ul style="list-style-type: none"> <li>Debrief Jhpiego Staff</li> </ul>	1400 – 1500	Hanna Gibson Sheena Currie 4 staff members	JF, SL, NM
	<ul style="list-style-type: none"> <li>Interview MOH General Director</li> </ul>	1600 – 1700	Dmasu Berhane Keseterberean	JF, SL, NM Premila Bartlett (USAID)
<b>Saturday 1/31/2010 (6)</b>	<ul style="list-style-type: none"> <li>Writing draft report</li> </ul>			
<b>Sunday 1/31/2010</b>	<ul style="list-style-type: none"> <li>Travel home</li> </ul>			
<b>SAN DIEGO CALIFORNIA</b>				
<b>Tuesday 2/2/10 (1)</b>	<ul style="list-style-type: none"> <li>Analysis of qualitative data</li> </ul>			
<b>Wednesday 2/3/10 (2)</b>	<ul style="list-style-type: none"> <li>Analysis of qualitative data</li> <li>Writing draft report</li> </ul>			
<b>Thursday 2/4/10 (3)</b>	<ul style="list-style-type: none"> <li>Interview ACCESS – Afghanistan PSE Midwifery</li> </ul>	0900 – 0930	Jeffrey Smith	JF
	<ul style="list-style-type: none"> <li>Writing draft report</li> </ul>	0930 – 1700		JF
<b>Friday 2/5/10 (4)</b>	<ul style="list-style-type: none"> <li>Writing draft report</li> </ul>	0800 – 0530		JF
<b>Saturday 2/6/10 (5)</b>	<ul style="list-style-type: none"> <li>Telephone conference Nahed Matta</li> </ul>	0700 - 0800		
	<ul style="list-style-type: none"> <li>Writing draft report</li> </ul>	0800 – 1600		JF

**DETAILED ASSESSMENT SCHEDULE**

<b>Day (6 day week)</b>	<b>Activities/Sites</b>	<b>Time</b>	<b>Individuals</b>	<b>Participants</b>
<b>Tuesday 2/9/10 (1)</b>	<ul style="list-style-type: none"> <li>• <b>Writing draft report</b></li> </ul>	0800 – 1600		JF
<b>Wednesday 2/10/10 (2)</b>	<ul style="list-style-type: none"> <li>• <b>Editing draft report</b></li> </ul>	0800 – 1600		JF, SL
<b>Saturday 2/13/10 (3)</b>	<ul style="list-style-type: none"> <li>• <b>Finalizing draft report and appendices</b></li> </ul>	0800 – 1600		JF
<b>WASHINGTON D.C.</b>				
<b>Tuesday 2/16/10 (1)</b>	<ul style="list-style-type: none"> <li>• <b>Travel to DC</b></li> </ul>			JF
<b>Wednesday 2/17/10 (2)</b>	<ul style="list-style-type: none"> <li>• <b>Presentation of draft report</b></li> </ul>			JF
<b>Thursday 2/18/10 (3)</b>	<ul style="list-style-type: none"> <li>• <b>Travel to San Diego</b></li> </ul>			JF
<b>Thursday 2/25/10 (1)</b>	<ul style="list-style-type: none"> <li>• <b>Revision of report based on feedback</b></li> </ul>			JF
<b>Friday 2/16/10 (2)</b>	<ul style="list-style-type: none"> <li>• <b>Crafting front matter for qualitative and quantitative survey supplementary report</b></li> </ul>			JF



## APPENDIX E. REFERENCES

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